

The



CHEMIST AND DRUGGIST

for RETAILER - WHOLESALER - MANUFACTURER

Established 1859

28 Essex Street, Strand, London, W.C.2

Registered as a Newspaper

No. 3105
VOL. CXXVII

NOVEMBER 20, 1937

Annual Subscription (with
Diary) 20/- Single Copies 9d.



This is Aspirin

'FRE-FLO'

made by W. J. Bush & Co. Ltd., London

Sole Selling Agents :

H. W. GRAESSER-THOMAS LTD

49 LEADENHALL STREET, LONDON, E.C.3

ROYAL 3011-6111

"UNOMEE, FEN, LONDON."

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CHEMISTS' CONFECTIONERY NUMBER

A
Pharmaceutical
Lozenge

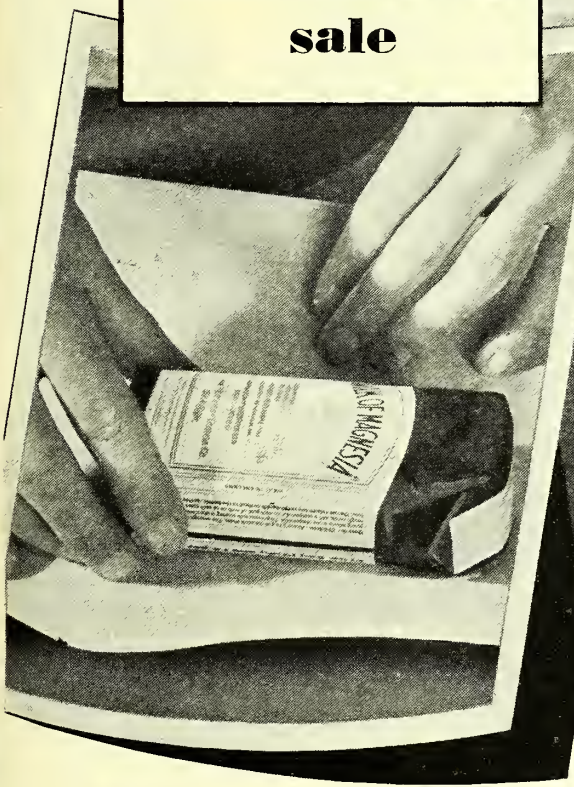
NOW
is the time
to
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SEND
FOR
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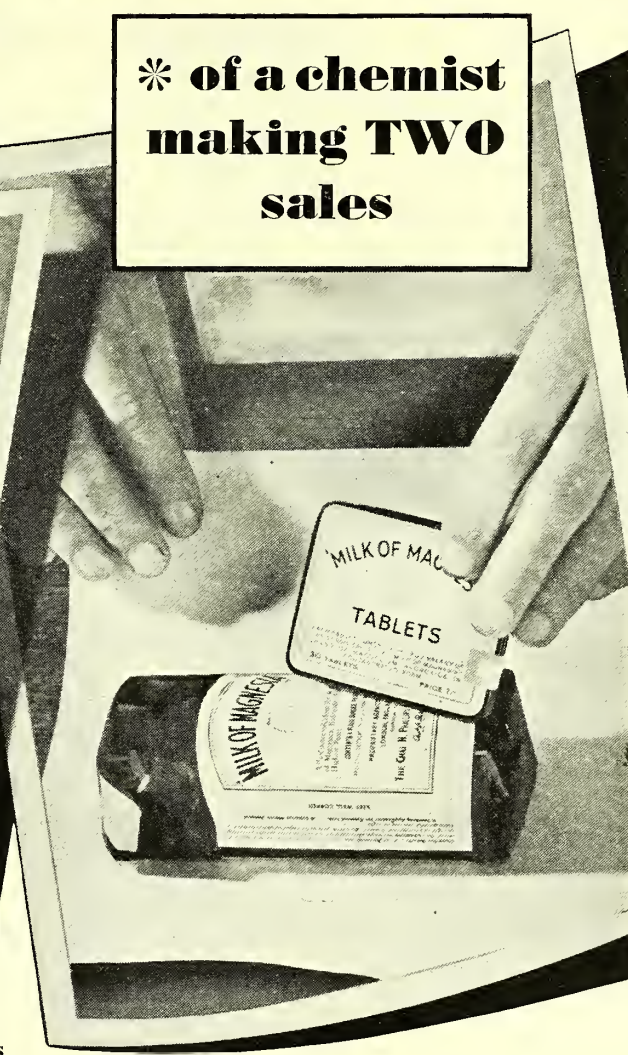
PARKE, DAVIS & CO., 50, BEAK ST., LONDON W.1.

Picture

*** of a chemist
making ONE
sale**



*** of a chemist
making TWO
sales**



Hand in hand—that's


the way "Milk of Magnesia" (liquid), and "Milk of Magnesia" Tablets go. *And that's the way they can be sold too!*

When a customer asks for "Milk of Magnesia," suggest that she takes along a box of the tablets also. Tell her that these tablets each contain the equivalent

of a teaspoonful of "Milk of Magesia" in concentrated form, they are easy to take, ideal to carry in the pocket or purse, and bring safe and quick relief in all stomach upsets.

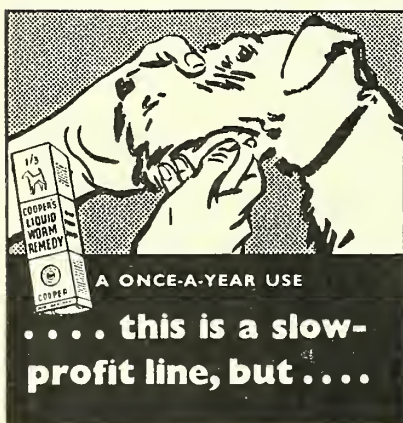
You'll find it easy to make two sales where you formerly made one.

PROPRIETARY AGENCIES LTD., 179 ACTON VALE, LONDON, W.3

 "Milk of Magnesia" is the registered trade mark of Phillips' preparation of Magnesia

HOW TO MAKE

9 times the profit on your veterinary sales!



AT ONE TIME, when you sold a worm remedy to a dog owner, you probably didn't see him again for a year. But now you can sell him a regular treatment which brings you 9 times as much profit in the year as a worm medicine alone.

The name of this treatment is the Cooper Health Routine and it involves two profitable products, Pulvex and Cooper's Vitamin Ration. Treatment with these two products is being advertised in all the leading Dog Journals. It is recognised as the first

scientific method of removing the scourge of worms in dogs.

Dogs get worms in two ways.

1. They get tapeworm from fleas. The worm infection is carried in the flea's body. To destroy all vermin and keep the dog free from vermin for a whole week, his coat should be dusted once a week with Pulvex. **Pulvex is the finest known insecticide for killing the chief carriers of tapeworm.**

2. Dogs get roundworm from scavenging. They eat excreta because they lack mineral salts in their food. These essential salts are contained in Cooper's Vitamin Ration, which, added to the diet every day, definitely stops the habit of scavenging. **Cooper's Vitamin Ration is a sure way to prevent dogs from picking up roundworm infection off the streets.**

Therefore, when you are asked for a worming medicine, first sell your customer Cooper's Liquid Worm Remedy, which is favoured by leading dog breeders, and then tell him how the regular use of Pulvex and Cooper's Vitamin Ration, the two elements in the Cooper Health Routine, will save his dog from the misery of repeated worming. In that way you sell products for daily and weekly use, where formerly you sold only an annual.

The advertising of this remarkably successful Cooper Health Routine is creating lively interest among big breeders and private owners throughout the country. Show Pulvex and Cooper's Vitamin Ration in your window and on your counter and build up a flourishing veterinary department to serve the dog owners in your locality.

**Now being advertised in
leading Dog Journals—**

THE COOPER HEALTH ROUTINE

... three sales in one and nine times the profit!

**1 COOPER'S LIQUID
WORM REMEDY**
Small Dogs 1/3 Larger Dogs 2/6

**2 PULVEX
VERMIN POWDER**
6d. and 1/3

**3 COOPER'S
VITAMIN RATION**
1/6 and 2/9

Trade Terms—less 33½% and less 5% cash monthly.

COOPER, McDOUGALL & ROBERTSON LTD., Berkhamsted, Herts.



"It's not a tall story!"

says Jane Seymour



Some time ago, the daughter of the chief official in one of the remoter British possessions came to see me. Just for a hobby, she was going to start a hairdressing business out there. And oh, please could she have about £5 worth of Jane Seymour Beauty Preparations? A friend had asked her to bring some out, and she thought some of the other white women in the locality might like to buy them, too.

I suggested that it was rather useless to take such a small quantity, as, if they were a success, she'd have to wait a long time for further supplies, and perhaps miss her market. She eventually decided to take £20 worth—and I may say she thought it was very daring.

Do you know that young lady, with her tiny clientele, is doing Jane Seymour business now amounting to some hundreds of pounds a year?

Now this just proves what I'm always saying. No matter how small or unpromising the locality, an agent can make a success with my preparations if he has the enterprise to take them up. Helped by my widespread advertising, and my Action Plan, he not only is able to give many of his old customers the good habit of regular beauty care—but he attracts new ones for miles around. Will you think it over—and write to me? My address is: Jane Seymour Ltd. 21-22 Grosvenor Street, Bond Street, London, W.1. Mayfair 3712.

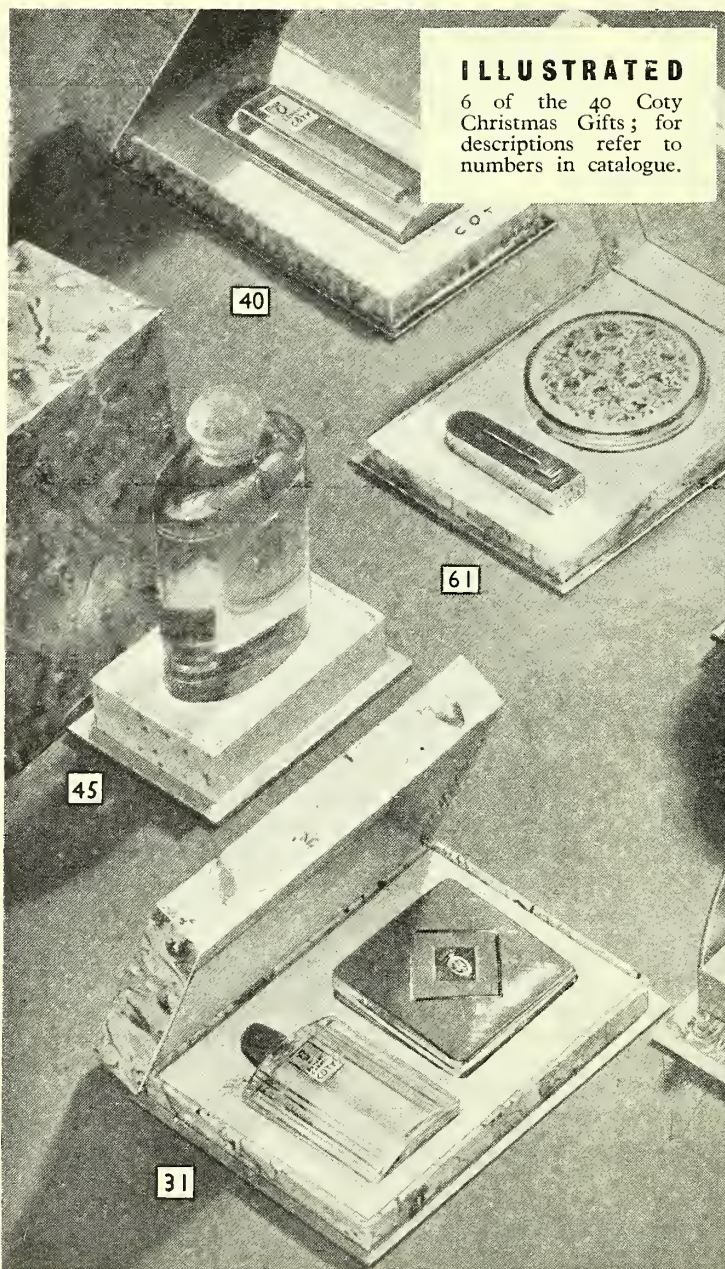


Trade Mark

Jane Seymour

BEAUTY PREPARATIONS

Some COTY Coffrets *already sold out!*



ARE YOU DISPLAYING YOURS?

The demand for Coty Coffrets is so keen this year that already the stocks of some presentations are exhausted.

Each year more dealers are proving that Coffrets are not only profitable to handle, but perhaps even more important is the fact that their display advertises your shop as a centre for elegant Christmas gifts. To make the most of this publicity value, see that the more expensive—and more exciting—presentations get prominent display in your window. The most attractive to passers-by, they are also the most profitable to sell. *Why not see the Coty Collection at the Coty Salon, 3 Stratford Place, London, W.1?*

Make it a COTY Christmas

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*[Continued overleaf.]***JONES**

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METHYLATED**SPIRIT**ALL STRENGTHS
IN STOCK.PROMPT DELIV-
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JohnThompson^(Wholesale Druggists 1921)Ltd.

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**DRUGS, GALENICALS, PILLS, TABLETS,
:: CHEMICALS, PACKED GOODS ::
and EVERYTHING IN PHOTOGRAPHICS**
Attractive packings of Cream of Magnesia are
now available at interesting prices

Ask us for details

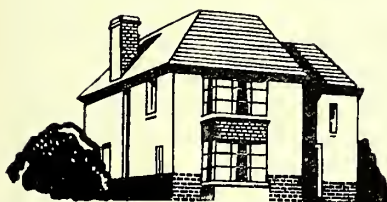
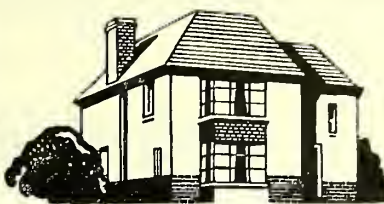
27-35 DUKE STREET, LIVERPOOL

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LIVERPOOL

LABORATORIES :
12/18 CAMPBELL STREET,
AND 10 GRADWELL STREET

TELEPHONE :
NO. 6121
ROYAL

Safe as



Houses

PUT your money into houses and you may do well—for everyone needs a home.

Put your money into VENO'S famous products and you are BOUND to reap a profit, for every day thousands, millions even, ask at their chemists for these world-renowned products.

Buy VENO and you buy WELL! Keep up your stocks of Venos Lightning Cough Cure! Don't run out of Dr. Cassell's Tablets or Germolene Ointment! Be ever ready for the growing all-the-year-round demand for Phensic!

VENO means VALUE—first, last and all the time.

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VENO means SUCCESS—for YOUR business.

So order to-day! Ask for new display material!



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VENO BUILDINGS, CHESTER ROAD, MANCHESTER 16

A Profitable and Consistent Seller



ZOM brand PILE TABLETS AND PILE OINTMENT

An effective treatment which can be recommended with great confidence

Tablets, Boxes of 25 - 5/6 per doz.
Ointment, Tubes - 5/6 per doz.
Ointment, Tins - 5/6 per doz.

ARTHUR H. COX & CO. LTD.

Manufacturing Chemists
BRIGHTON



Our Xmas Gift Display

W.55

For your Xmas Gift requirements, either personal or for resale, we have an extensive display of most seasonable gift items.

You are cordially invited to visit our Showrooms, to inspect the large and well-varied range of Perfumes (the latest and most popular makes), Coffrets, Clocks, Brush Sets, Manicure Sets, Sprays, Ladies' Hand Bags, Cut Glass, Pottery Ware ; Enamel, Ebony, Pewter, Shell and Silver Goods ; Cameras, etc.

WOOLLEY'S

Early attendance is advisable, as many of the items cannot be repeated.

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SOLD BY CHEMISTS ONLY

RETAIL PRICE 1/6 per JAR
CHEMISTS' PRICE 10/- doz.

Send for sample and details of bonus terms to :

THE

Armour Laboratories
(ARMOUR AND COMPANY LTD.)

ARMOUR HOUSE • ST. MARTIN'S-LE-GRAND • LONDON • E.C-1

KING'S

COIN EXHIBITOR CASH TILL

AN INVESTMENT! NOT MERELY A PURCHASE
RETAIN YOUR CUSTOMERS—
SHOW THEM THE COINS THEY TENDERED AND
AVOID DISPUTES.



Extremely simple in operation. Closing the drawer automatically brings the revolving disc into operation, one section covering the Coin Chute which in turn passes the coins into the drawer.

Four coins are exhibited at once and the amount charged, which is recorded on the roll, is also in full view.

Tested and proved satisfactory by all classes of Tradesmen.

SELLS AT

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BRITISH
MADE

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42-60 GOSWELL ROAD, LONDON, E.C.1

Telephone : CLE. 2316 (6 lines)

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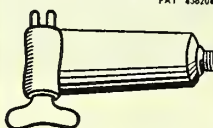
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BRITISH MADE METAL SMALLWARES

of every description

ROLATUBE KEY

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NO MESS — NO WASTE

Can be used hundreds of times

Supplied stamped with your name and address as a permanent advertisement

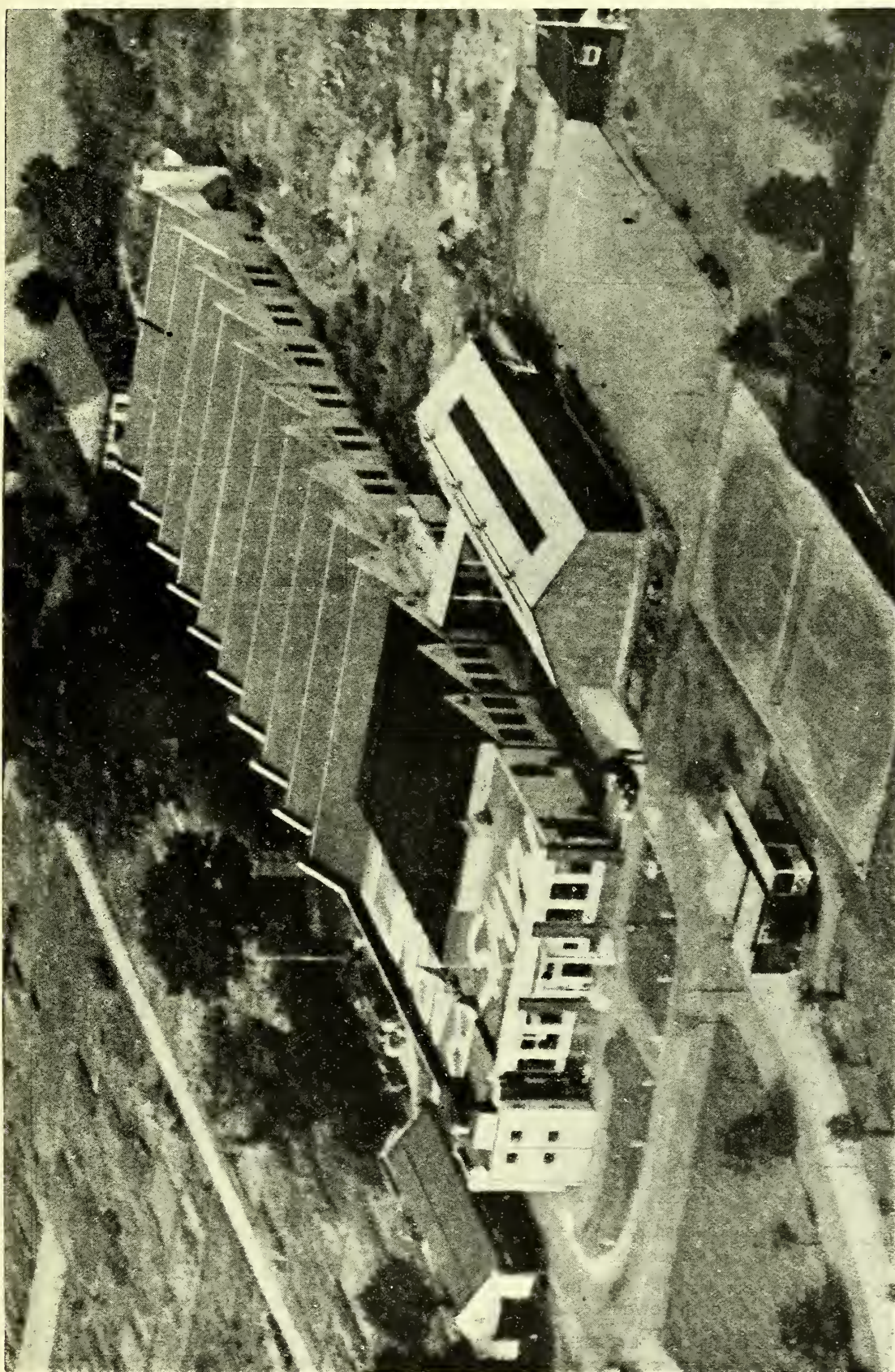
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L. ELBOZ & SON



RAYON D'OR WORKS
94 FERDENE ROAD,
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HOME OF MAW'S SURGICAL DRESSINGS
SOLD ONLY BY CHEMISTS, IN THE FAMOUS YELLOW PACKAGE

SHAVE WITH A "LAUREL"

"LAUREL PENNY BLADES—ALL TYPES"

MADE IN SHEFFIELD, ENGLAND

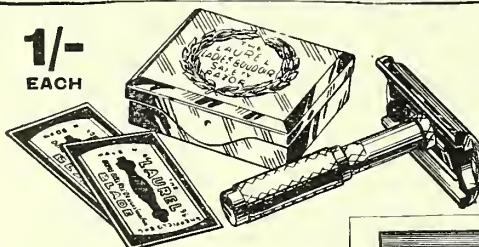
"LAUREL"

LADIES' BOUDOIR
SAFETY RAZORS
(NICKEL PLATED)

6d.
EACH



1/-
EACH



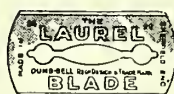
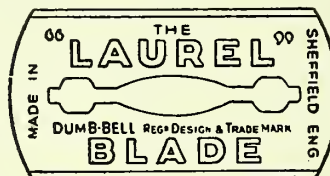
THE "LAUREL" LADIES'
GOLD PLATED BOUDOIR
SAFETY RAZOR

COMPLETE WITH TWO BLADES AS
ILLUSTRATED



**PENNY
BLADES**

FOR YOUR RAZOR
PACKET OF SIX
BLADES FOR
6d.



FITS ALL 3-PEG HOLDERS



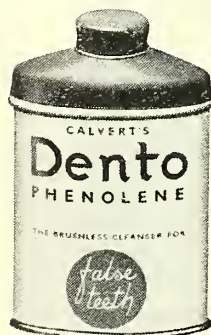
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Dento

PHENOLENE

THE BRUSHLESS
CLEANSER FOR
False Teeth



Two sizes. Retail **6d.** and **1/-**
Trade 4/6 per doz. and 8/6 per doz.

• Extra discount on parcels which can in-
clude Dento, Calvert's Tooth Powder, etc.

F. C. CALVERT & CO. LTD. MANCHESTER

ROWLAND'S MACASSAR OIL



FOR ALL SHADES
OF HAIR
IT PROMOTES THE
GROWTH, GIVES
LIFE AND LUSTRE
AND LONG DE-
LAYS BALDNESS.

A. ROWLAND & SONS, Ltd.

22 Laystall Street, Rosebery Avenue
London, E.C.1

★

AN APOLOGY

by

BOURJOIS

IN budgeting for the Christmas season we took a decidedly optimistic view of the probable demand—so much so, that we were not without qualms that the possibilities had been over-estimated.

The actual position is that the stocks of a number of our Coffrets and other special Christmas lines are already exhausted, and it is impossible at this date to produce further supplies in time for effective distribution.

Such evidence of the amazing popularity of "Evening in Paris" is very gratifying, and we take this opportunity of thanking our friends in the trade for their loyal support. To those who have not been able to obtain all that they wished, we tender this statement of the situation and our sincere apologies

There are still limited stocks of a few of the Coffrets—and the perfumes and other standard lines which make most attractive gifts are always available.

BOURJOIS LTD., QUEENS WAY, CROYDON
SHOWROOMS: STANDBROOK HOUSE, 2-5, OLD BOND STREET, LONDON, W.1.

★



WATCH FOR THEM
IN—

London Evening Standard
Sunday Express
Sunday Dispatch
Sunday Chronicle
Sunday Times
John Bull
Sunday Mail
Sunday Post
Sunday Weekly Herald
Glasgow Field
Scottish Field
Tablet Tit-Bits

WATCH SALES SOAR! WATCH YOUR STOCKS!

New National Advertising Campaign
to consolidate the success of **MORNING PRIDE**

"Morning Pride" has taken premier place in the shaving cream market. First in public favour "Morning Pride" is second to none in rapidly increasing sales.

Look to your stocks and be sure of your share of profits from this new wonder shaving cream.

MORNING PRIDE

REGD.

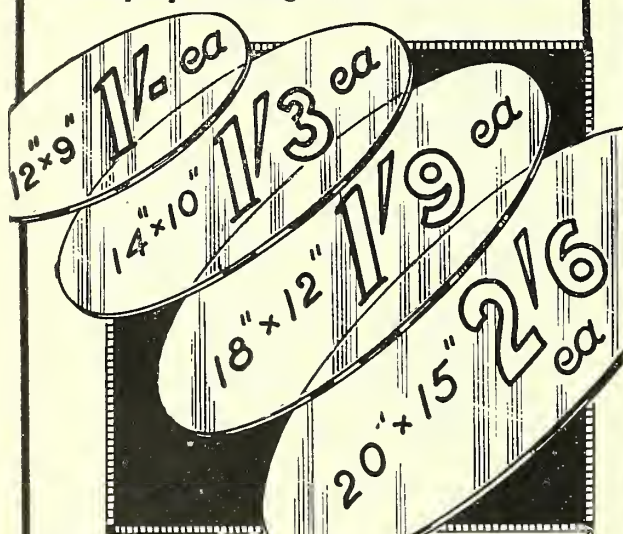
THE RAZOR READY BRUSHLESS SHAVING CREAM

PRODUCT OF FAIRY DYES LTD., PHARMACEUTICAL DEPT
For particulars of attractive Initial Order terms write

SOLE DISTRIBUTORS: FASSETT & JOHNSON LTD

86 CLERKENWELL ROAD, LONDON, E.C.1

Send for our Xmas List of
Display Fittings No. CD. 1787



No. GG 4653. Second quality Glass Ovals. Absolutely new but very slightly sub-standard in colour. In the above sizes only. Carr. Extra.

DUDLEY & COMPANY, LTD.
HOLLOWAY, LONDON, N.7

Holloway Showrooms: 451 Holloway Rd., N.7. Phone: Archway 4221.
City Showrooms: 65 Fore Street, E.C.

CHRISTMAS DECORATIONS



GOLD STAR DESIGN. New Display Paper.
Brilliant design in Gold on matt colour ground, 30" wide.
5/6 per 10-yard roll.

No. 39/1...Red/Gold. No. 39/3...Blue/Gold.
No. 39/2...Green/Gold. No. 39/4...Black/Gold.

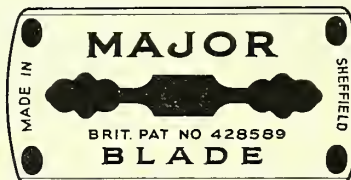
Send for swatches of more than fifty other papers in stock.

How's of Fore Street

DISPLAY SPECIALISTS
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Telephone: NATIONAL 5811/2.

SOMETHING NEW FOR CHEMISTS

Retail
1d.
each



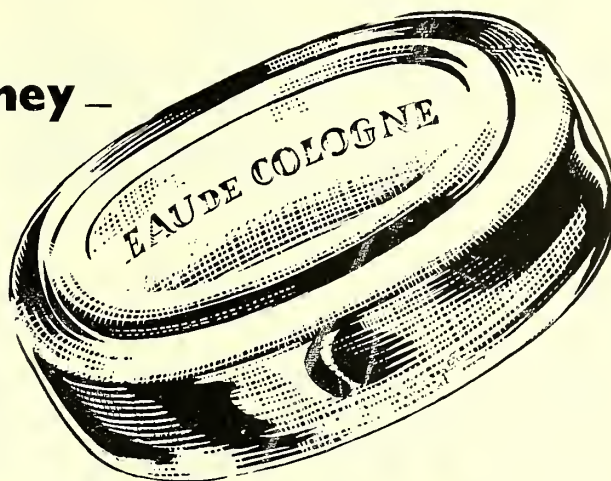
Retail
4
for
4d.

The Slotted "Major" Blade fits
Three-peg and Bar-Type Razors.

SAMPLE AND TERMS FROM—

DOMINION STEEL CORPN., LTD.
FLEET WORKS, QUEEN'S ROAD, SHEFFIELD, 2

This News Makes Money —



25% EXTRA PROFIT
for YOU

AVA
on
Eau-de-Cologne
TOILET SOAP
- if you order **NOW!**

On January 1st, 1938, the price of this popular soap will be reduced from

8^d to 6^d

Although the public will not be able to purchase at the new price until that date,

Use this ORDER FORM

the Trade is invited to stock NOW at
12/- instead of **16/-**

PER DOZ.

3-TABLET BOXES

Get the benefit of this extra profit from your Christmas selling by

ORDERING AT ONCE

To : **AVA LTD., Soap Specialists, 9 PARK HILL, London, S.W.4**

(Phone: MACaulay 2414)

Please supply.....dozen 3-Tablet Boxes of **AVA EAU DE COLOGNE TOILET SOAP** at the reduced Trade Terms of **12/-** per dozen boxes. Carriage Paid on 2 dozen.

Name..... Address.....



• This is the first advertisement of a series of 4 outlining the "Nufix" policy.

firstly **NUFIX** QUALITY

The NUFIX claim to be the leading hair dressing is based on definite proof of quality . . . confirmed by practical tests of independent experts and the analyses of leading analytical chemists. NUFIX costs more to make because of its valuable ingredients—found only in NUFIX—yet NUFIX sells at popular prices. NUFIX contains NO GUM to cause a dry scalp—NO PERMEATING GREASE to collect dust which chokes the pores, and, incidentally, soils hats and pillows—No Soap—No Starch. NUFIX is outstanding in quality and efficiency . . . its daily use ensures perfect grooming, a clean, healthy scalp and definite hair growth.

NUFIX

THE FAULTLESS HAIR DRESSING

Sole Makers: Walden & Co. (Nufix) Ltd., Nufix Works, Rookery Way, London, N.W.9

ALLEGRO
ADVERTISING
SELLS
PUNCH
The Daily Telegraph
Evening Standard
STRAND
MAGAZINE
THE WORLD

FOR YOU

Advertising for the "Allegro" Razor Blade Sharpener is in the papers shown on the left—papers that men read and respect. Straight Razor users, too, find details of the wonderful "Allegro" Flexible Strop. Sell "Allegro"—backed by National Advertising. Have a sample on your counter to demonstrate.

Heavily nickel-plated "Allegro Standard" 21/-, "Allegro Junior" 8/6, sharpener for straight razors—sets and hones, "Allegro Flexible" 9/-.

From all wholesalers.

Allegro

Swiss Manufacture

THE NATIONALLY ADVERTISED SHARPENERS

Condor Ltd.

(Sole Agents)

77/78 Fore Street, London, E.C.2

KING'S FOR SHOPFITTINGS



No. H. 3249. Round Section Metal Display Pedestals, fitted with Rubber Studs at Top and Bottom. Stocked as follows:—

Height.	Brown Bronze Finish.	Chromium Plate Finish.
9-in.	1/6 each	2/9 each
12 in.	2/0 "	3/3 "
15-in.	2/3 "	4/0 "
18-in.	2/6 "	4/9 "
21-in.	3/0 "	5/6 "
24-in.	3/6 "	6/6 "
30 in.	4/6 "	8/0 "

No. OK 256. First Quality Glass Ovals, 1/4" thick, polished edges.

Size.	Size.
6" x 5" 12/0 Doz.	16" x 9" 22/6 Doz.
10" x 7" 13/6 "	18" x 12" 28/0 "
12" x 9" 14/6 "	20" x 15" 45/0 "
14" x 10" 18/0 "	24" x 18" 52/0 "



No. OK 354. Extension Glass Shelves, 1/2" thick, polished edges.

Size.	Size.
4" x 2 1/2" 6/0 Doz.	6" x 4" 8/0 Doz.
5" x 3" 6/6 "	8" x 4" 12/0 "
6" x 3" 7/0 "	9" x 4" 13/0 "

No. 9017. Heavy Pattern Screw Clip for connecting two Glass Shelves. Plated finish. 10/6 Dozen.

We will be pleased to forward the following Catalogues post free on application.

No. 1013. Modern Display Fittings and Fixtures.
" 1914. Christmas Display Materials.

J. C. KING, LTD., 42-60 GOSWELL RD., LONDON, E.C.1

Phones: CLERKENWELL 2316 (Private Branch Exchange)

Take your choice

NOW READY PACKED OR LOOSE



Although only introduced late last winter, "Brustine" Bon-Bons soon 'caught on.'

Some chemists wanted them loose, others packed, so now you have the choice. Loose in 7 lb. tins packed in cases of 28 lbs. with free bags (holding $\frac{1}{4}$ lb.) as before, or in attractive display outers of 2 dozen transparent bags ready to hand over.

This new display outer is ideal for counter or window shows and prominently displayed will act as an extra salesman.

You need have no fear of stocking "Brustine"—they sell too quickly to deteriorate.

FIXED RETAIL PRICES :

6d. per qtr., or 6d. per bag.

Brustine

BRAND

NOSE &
THROAT

BON-BONS

BRUSTOC LTD.

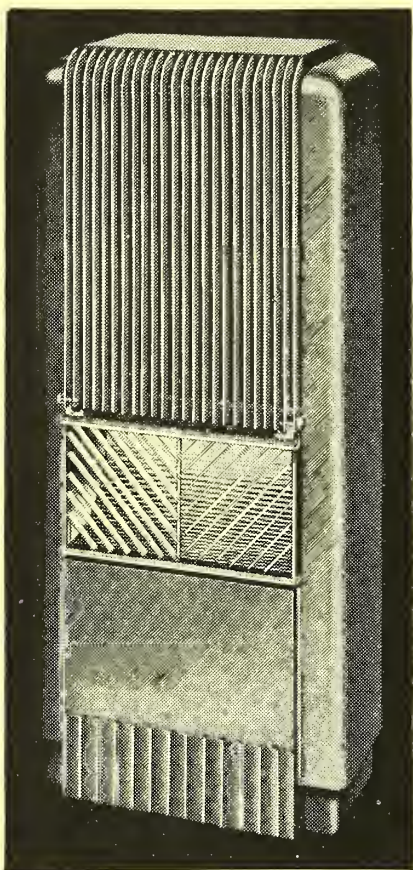
WINWICK STREET
WARRINGTON

Distributors for Yorkshire
HIRST, BROOKE & HIRST Ltd., Sheepscar Works, LEEDS

Distributors for Manchester and East Lancs.
D. MAWDSLEY & CO., Riga Street, MANCHESTER

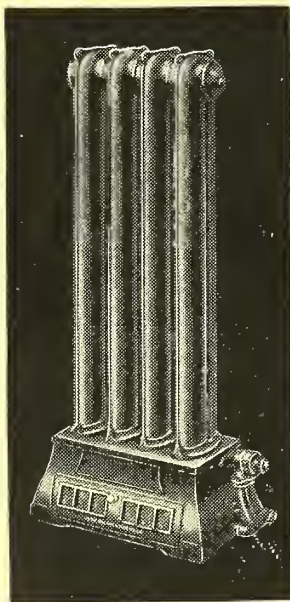


GAS HEATING



THE "Luma" Heater is an outstanding development in heating by gas. The advantages of radiant and convected heating are combined in this appliance. A predetermined proportion of the heat is given out as radiation, and the atmosphere of the room is quickly brought to a comfortable temperature by the stream of warm air drawn through the body of the heater. This heater gives 100% efficiency, and even when connected to a flue the efficiency is 80%—a truly remarkable achievement in gas appliance designing. The "Luma" casing has been constructed on such a principle that the exterior is cool, thus permitting the heater to stand against a panelled or painted wall.

The "Luma" Gas Heater is designed on unique lines and will suit any and every position. Four attractive colour finishes afford a choice to harmonise with any scheme of decoration.

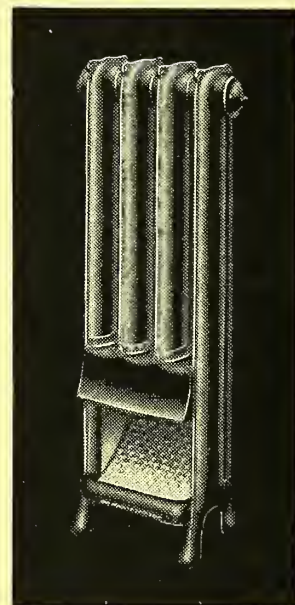


The "St. Vincent"

"LOOPS OF HEAT"

Shops and stores all over the country have installed Wright's Gas Radiators (Loop design) and ensure comfortable warmth for customers and staff. One of the outstanding advantages of Wright's Gas Radiators is that these radiators need no attention from the moment they are lighted. The 'Regulo' automatic control keeps the radiator at an even temperature, and also ensures that only a minimum of gas is used.

All who are interested in shop heating should write for a copy of "Gas Heating," a book of information, profusely illustrated, showing a variety of designs in Wright's Gas Radiators.



The "St. Bernard"

JOHN WRIGHT & CO. LTD. (Dept. C.D.), ASTON, BIRMINGHAM, 6 **Radiation**



The Throat Pastilles with
a world-wide reputation



EVANS' *Pastilles*

Safe to Stock

because their merit retains old friends, whilst
extensive advertising secures new ones.

Safe to Recommend

because Evans' Throat Pastilles are made to a
formula of the Liverpool Throat Hospital.

Many buyers of cough mixtures will also take a tin of

EVANS' *Throat Pastilles*

(if reminded by the chemist)
for handy use during the day.

P.A.T.A.

Retail **6d.** Wholesale **4/-**

„ **1/-** „ **9/-**

Ask our representative for details
of Bonus Display Terms.



*Made under the supervision of pharmacists
by*

EVANS SONS LESCHER & WEBB LTD., Liverpool and London

FRIARS' BALSAM LOZENGES

A popular remedy in a
NEW FORM.

Glucose and Dextrose Base.

**THIS
SEASON'S
NEW
MEDICATED
LINES**

Window bags supplied to
retail in 6d. packets.

Special bonus and discount
terms show over 100%
profit on cost for small
contract of 42 lbs. assorted.

HALIBUT LIVER OIL HEXAGONS

Now in a **BARLEY SUGAR BASE**.
Flavoured with **Tangerine Orange**.
Contains oil of an increased potency :
67,500 International Units Vitamin A.
2,600 International Units Vitamin D.

Supplied by the Crookes Laboratories.



A. L. SIMPKIN & COMPANY LTD.

(Dept. C.D.)

BARLEY SUGAR WORKS, SHEFFIELD, 6

T.C.L. TABLETS

For the **THROAT, CHEST,**
and **LUNGS**. Each individu-
ally wrapped.

A QUICKLY REPEATING LINE.

**PIONEERS
OF
GLUCOSE
CHEMISTS'
CONFECTIONS**

Are you ready to get your
share of this big oppor-
tunity for extra profit?

If not, write today for full
particulars.

PINE CATARRH LOZENGES

For **ALL CATARRHAL**
affections of the respiratory
passages.

In Glucose and Dextrose Base.

Labels

See that your labels
reflect the character
of your business

You would never tolerate slipshod dispensing

It is equally important that your labels should be first-class. There is a world of difference between the older-fashioned styles and those produced by the litho-offset process.

This modern process produces work scarcely distinguishable from Photogravure, but at a speed three times faster than old style methods. If therefore you take pride in your products and want to know how good Really good Labels can be—send us your next enquiry.

Remember the address :

STEEL ADAMS & CO. Specialists in Printing for Pharmacists
GAYTHORN WORKS · JORDAN STREET · **MANCHESTER 15**

"Hall - marked"

Confectionery

for the Pharmacist

The Leopard's Head of the Goldsmiths' Hall, London, is a recognised hall-mark for gold and silver. The Gibson "Cross-over" Trademark is the hall-mark of pure and wholesome confectionery—imitated but never excelled.

Five International Gold Medals have been awarded for Gibson's CREAM TOFFEE, and the flavour, sweetness and goodness of Gibson's MIXED FRUIT DROPS and a full range of Boiled Sugars is known throughout the world.

Gibsons originated the hardy hygienic envelope for 1d. Barley Sugar Sticks—the still unquestioned best.

Recent innovations of interest to Chemists are Gibson's Fruit Slices in 6d. Balls, cellophane wrapped and packed in attractive "Fruit Basket" containers.

GIBSON'S 2d. ROLLS

Another ready selling counter line that sells on sight.

Send your order to-day!

ROBERT GIBSON & SONS, LTD.
MANCHESTER——and——LONDON

'SURE SHIELD'

REGD. TRADE MARK

BRAND

A NAME AND A STANDARD



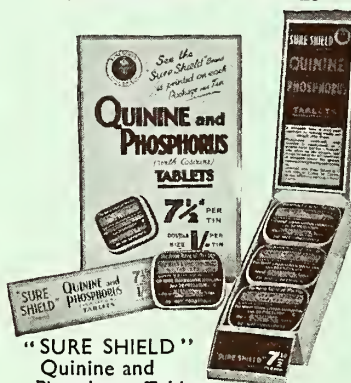
"SURE SHIELD" Fruit Laxatives

Iodised "SURE SHIELD"
Throat Tablets"SURE SHIELD"
Glycerine of Thymol
PastillesCATARRH
PASTILLES

VOX BRONCHIAL PASTILLES

GLYCERINE, LEMON
& HONEY PASTILLES

RED-GUM PASTILLES

"SURE SHIELD"
Quinine and
Phosphorus TabletsGLYCERINE & BLACKCURRANT
PASTILLES

THOS. GUEST & Co., Ltd.

Manufacturing
Chemists

'SURE SHIELD'

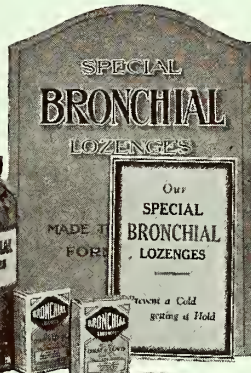
REGD. TRADE MARK

BRAND

A NAME AND A STANDARD



BISMUTHATED MAGNESIA LOZENGES



BRONCHIAL LOZENGES (OWN NAME)



"BIS-PEPS"



B.C.L. LOZENGES



RANGE OF HANDSOME SHOW JARS—ENAMEL LABELS—24 VARIETIES



"NIPS" REGISTERED TRADE MARK

A POPULAR WINTER COUGH LOZENGE

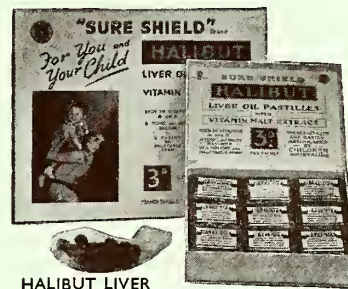


GRAPE-FRUIT PASTILLES



ATTRACTIVE Counter PASTILLES

Prepared with a genuine Gum Base, will always keep soluble.



HALIBUT LIVER OIL PASTILLES. A combination of Vitamins A, B & D. Readily taken by children.

CARRUTHERS ST., MANCHESTER, 4 LONDON WAREHOUSE: 15 & 16 Jewry St., E.C.

PARAMOUNT



*Would you
like your
window
dressed free
with this sales
creating show?
If so, write
now for details
of attractive
bonus offer.*



*Quick Delivery
from
EIGHT DEPOTS*

**PARAMOUNT
Britannia**

OUNT



A strong Link in the Chain of C.F. Manufacturers

The range of PARAMOUNT Products that has raised the standard of Chemists' confections.

Medicated Confectionery is a valuable adjunct to your business—easily handled and profitable.

Specialists in Glucose, Therapeutic Confections, including the following range:— Barley Sugar (Cubes & Sticks), Crystal Digestive Mints, Crystal Cough Cubes, Medicinal and Medicated Pastilles, Lozenges and Tablets, Pontefract Cakes, etc.

PRODUCTS LIMITED
House, BRADFORD

2 Special Winter lines...RESERVED FOR CHEMISTS



All Fours is an inexpensive Cough Sweet, sold in bulk. Forceful showmatter, and two-colour envelopes supplied for packing.

ALL FOURS CUBES

RETAIL 2^d PER OZ.

7 lbs. - 1/4 56 lbs. - 1/1
14 lbs. - 1/3 112 lbs. - 1/-
28 lbs. - 1/2

CHESTNUTS

7 lbs. - - 2/-
14 lbs. - - 1/11

Contracts can be booked
for one cwt. at 1/8.

Free Cartons, Display material

Arthur H. Cox & Co. Ltd.

MANUFACTURING CHEMISTS
BRIGHTON

BLYTON, ASTLEY & CO. LTD.

LOZENGES
PASTILLES · TABLETS
LIQUORICE PELLETS
HEALTH SALTS, etc.

Own name packs to suit
individual requirements

MENTHELLS · DIGESTELLS
& "I.G.T. SAFEGUARDS"

Enquiries are invited from:

Regular Buyers · Large and Small Packers
Shippers and Trade

Eagle Laboratories

LOWER BROUGHTON, SALFORD, 7, LANCs.

Telegrams: "TROCHES, MANCHESTER." Telephone: BLACKFRIARS 9848

Iglodine

Throat Pastilles & Throat Tablets

are being extensively advertised as a preventive against Colds and Influenza. Do not disappoint your customer by being out of stock. The Pastilles are put up in attractive tins at 6d. each; Throat Tablets in 6d. tubes and 1/- bottles. Usual trade discounts allowed.

The Iglodine Co., Ltd., Newcastle-on-Tyne



KING'S
1937
XMAS
LIST

Do not miss this
year's Catalogue! 60
Pages in colour. Illustrating
the most Brilliant, Unique
and Comprehensive range of
seasonable display material.
Ask for List No. 1914

XMAS
DECORATIONS
DISPLAY
NOVELTIES
& MATERIAL
NOW READY

WRITE AWAY TO-DAY FOR A
COPY OF THIS 60 PAGE LIST
Issued entirely free of charge

J. C. KING Ltd., 42 Goswell Road, London, E.C.1
Phone: Clerkenwell 2316 (P.B.E.)

HALIBARS



Retails at

6^D

Per Quarter



CONTAIN IN PUREST FORM

SUGAR The Source of all Bodily Energy.

GLUCOSE The substance which can best be described as Life's Vital Force . . .

LEMON A "Cleansing" food; it clears the blood, assists digestion and aids elimination.

FINEST HALIBUT LIVER OIL

The Vitamin A & D value of this is approximately fifty times more concentrated than in Cod Liver Oil, and is the greatest body builder known to science.

These **HALIBARS** have been a very popular line for many years. They have acquired a reputation among both the public and the Chemist based on unfailing quality. Recommended by the medical profession—

An Ideal Line for Chemists

Made and Guaranteed by:—

J. BOTTOMLEY & SONS LTD

Victoria Park Works, **KEIGHLEY**



that it pays you to send your orders to

Sangers
LIMITED

● It really is surprising how much you save by sending your orders to Sangers. One source of supply means easier book-keeping, easier checking, easier ordering. Time saved is money earned—add to this money saved in stamps, cheques, etc.

When you also have the benefit of a gigantic organisation whose one aim in life is to give you absolute satisfaction, it is just ordinary business commonsense to—send your orders to Sangers.

SANGERS, LTD.

Wholesale and Manufacturing Chemists

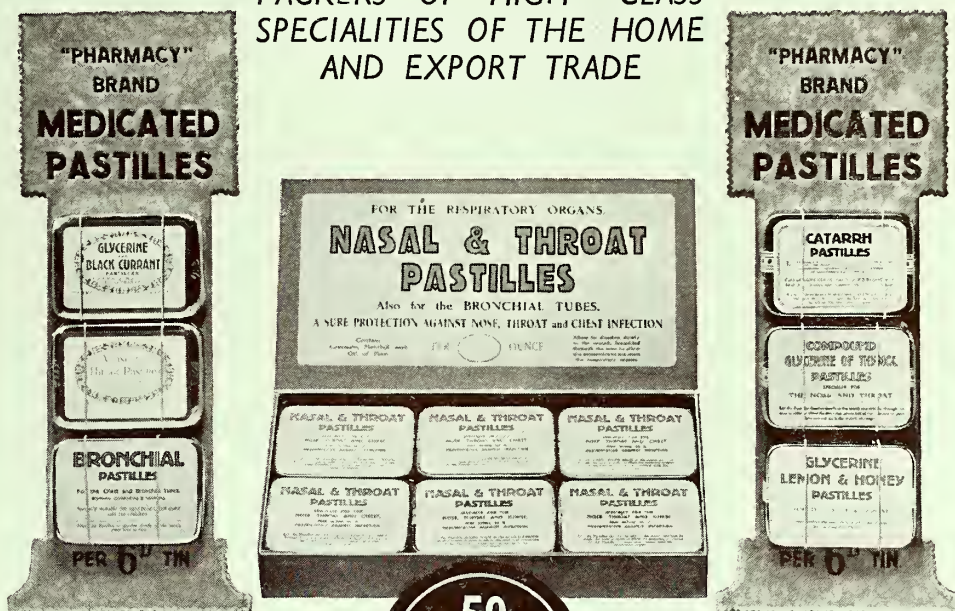
258 EUSTON ROAD, LONDON, N.W.1.

TELEPHONE: EUSTON 5010

Associated Companies and Branches : 7-13 CLERKENWELL ROAD, E.C.1 • BELFAST • BIRMINGHAM
BOURNEMOUTH • BRISTOL • CARDIFF • LIVERPOOL • PLYMOUTH • NEWCASTLE

MEDICATED PASTILLES

PACKERS OF HIGH - CLASS
SPECIALITIES OF THE HOME
AND EXPORT TRADE



50
YEARS'
CONTINUOUS
PROGRESS

Packed in tins to retail at 6d., these Medicated Pastilles are very handy for the pocket and handbag.

The showstands make a most effective method of showing them, and we also pack them in handy show boxes of one dozen similar to the Nasal and Throat. We pack the following varieties: ANTISEPTIC THROAT, BRONCHIAL, CATARRH, NASAL & THROAT, MENTHOL & EUCALYPTUS, GLYCERINE & BLACK CURRANT, GLYCERINE, LEMON and HONEY, and GLYCERINE of THYMOL. Price 3/6 per dozen.

These Bronchial Pastilles are very popular, which is due no doubt to the fact that they combine a pleasing taste with proved medicinal virtues. When dissolving in the mouth, soothing vapours are released, which ease the whole of the Respiratory system. Each tin is wrapped in cellophane, and the show boxes contain one dozen tins.

In similar boxes we pack the same varieties of Pastilles mentioned opposite at the uniform price of 3/6 per dozen.

Send us your next enquiry

BROOK, PARKER & Co. LTD.

Manufacturing & Export Chemists

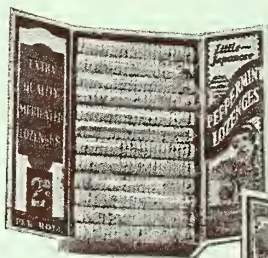
7, 9, 11 ASHFIELD, HORTON RD., BRADFORD

Potter's

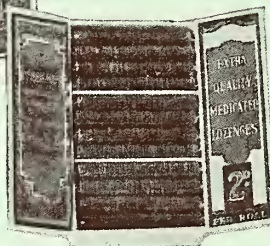
MEDICATED CONFECTIONERY OF PROVED SELLING MERIT!



BALM OF GILEAD
PASTILLES



BROMPTON
CHEST & LUNG
LOZENGES



PEPPERMINT
LOZENGES



COLTSFOOT ROCK

- PACKED LINES OF ALL DESCRIPTIONS
- FULL LIST WITH PRICES ON REQUEST



LINSEED, LIQUORICE &
CHLORODYNE LOZENGES



MENTHOL & LIQUORICE
PELLETS



BISMUTH
DIGESTIVE
TABLETS



POTTER & CLARKE LTD.

Drug Merchants : Manufacturing Chemists

60, 62, 64 ARTILLERY LANE, LONDON, E.1 . 77 DANTZIC ST., MANCHESTER, 4

'Phone :
Bishopsgate 4761 (5 lines).

'Grams :
" Horehound, Phone, London."

'Phone :
Blackfriars 8734.

'Grams :
" Horehound, Manchester."

Are you buying these **2** LEADERS on best terms?

IF NOT — ORDER TO-DAY THROUGH YOUR WHOLESALER

NAILOID—backed by the biggest advertising for any single manicure product

A complete nail beauty treatment—the greatest manicure advance for years. In attractive blue and white plastic jars retailing at 6d., 1/6d. and 3/3 per jar. $\frac{1}{4}$ doz. 1/6d. jars packed in the striking display carton awarded first prize in National Packaging Contest. Free display material and leaflets. Consistent advertising in all important Women's Magazines and National Papers.

YOUR PROFIT

38 $\frac{10}{100}$ % on best terms — 7d. per 1/6d. jar

Allcock BRAND **Plasters**—the only **Porous Plasters** nationally advertised

Famous for 90 years. Every sale brings you customer goodwill—and Allcock brand Porous Plasters bring you more profit than any other. Packed in free counter sell-out containers. Regular advertising in "Radio Times" and Sunday Nationals.



YOUR PROFIT

43% on best terms — 6 $\frac{1}{2}$ d. per 1/3d. plaster

And a coming leader —!



National advertising for Dr. Brandreth brand Pills—the world-famous vegetable laxative—commences November 12th. Retail 1/3d. per box — 11/- per dozen from your Wholesaler.

Write for extra show material and best terms to

**ALLCOCK MANUFACTURING COMPANY, HAMILTON SQUARE, BIRKENHEAD
OR SELLING AGENTS: J. GAW & CO., 65 HATTON GARDEN, LONDON, E.C.1**

WILLIAM MATHER, LIMITED

DYER STREET, MANCHESTER.

(Established 1826)

ZINC OXIDE and RUBBER ADHESIVE PLAISTER
ON SPOOLS

POROUS PLAISTERS. ELASTIC PLAISTER BANDAGES
ANTISEPTIC PLAISTER DRESSINGS, "CROCUS" CORN
COMFORT, Etc.

To BUYERS of TRUSSES!

The most complete up-to-date facilities for the manufacture of **RUPTURE APPLIANCES** of every known English and American pattern are operating at
**BLACK BULL WORKS,
MARKET ROAD, LONDON, N.7**

Hard Rubber, Celluloid, Leather and Mole
Covered and Elastic Band Trusses, under the

"MASTER"
BRAND
TRADE MARK



are sold in all
Markets of the
World.

"KO-RALLIUM." A new flexible covering for Steel Springs, is immune from Warping, Cracking, Shrinking or Peeling. Non-Inflammable, Impervious to Moisture, Neutral to URIC ACID Secretions. Supersedes Hard Rubber or Celluloid. Get to know of this. It is **Something Different!**

Suspensory Bandages and Jock Straps

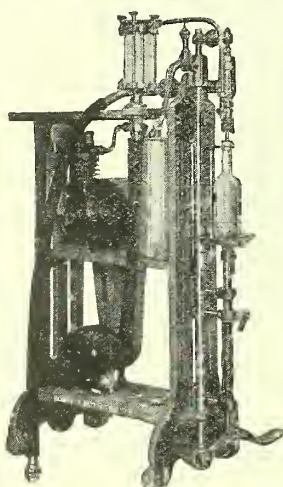
We offer distinctive lines of outstanding value. Our weaving sheds allow of all intermediate profits being passed to our customers.

Write for sample range at Special Rate, then compare.

F. SCHUTZE & CO., LTD.

Black Bull Works, Market Road, London, N.7

**ROBERTS' PATENT
"LEO" VACUUM FILLER**



for Glass, Stone,
and Tin Bottles.
Fills all sizes from
drachm to quart—
long, short or
sprinkler neck.

**Clean and Rapid
No Over Filling
Broken Bottles
Rejected
Easy to Clean
Self Rinsing**

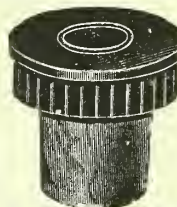
WRITE FOR
PARTICULARS

Roberts' Patent Filling Machine
Company Limited

33 Roundcroft Street, Bolton, Lancashire

Makers of every description of Bottle Filling and Shallow
Jar and Tin Filling Machine for the Chemists' use
ALL RIGHTS RESERVED

COMPOSITION STOPPERS
BAKELITE MOULDINGS
COMPACTE COSMETIC & ROUGE BOXES



*200 Varieties
Any Colour.*

A suitable Composition Stopper will enhance the selling value of your package. Let us fit your Bottles and quote you.



W. J. SHARPLIN, Ltd.

Middle Lane Works, Hornsey, LONDON, N.8

Telephone:
Mounview 3952

**THE SOUTH OF ENGLAND
COLLEGE OF PHARMACY**

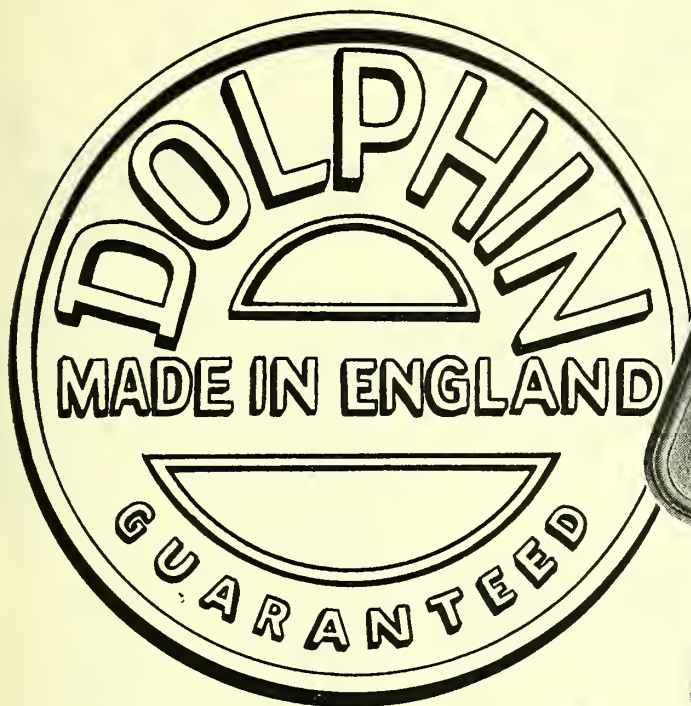
Principal — H. LUCAS, Ph.C., F.C.S.

"THE SCHOOL FOR SUCCESS"

This College affords systematic instruction in the subjects for the Preliminary Scientific and Qualifying Examinations.

Revision courses start every three months, the next one starts on Jan. 4th, 1938; fee 10 guineas. "Once a week" classes for Part I are held each Wednesday, 2-8.30 p.m., fee 2 guineas per term.

For all particulars, entry form, etc. apply THE PRINCIPAL—
186 CLAPHAM RD., LONDON, S.W.9. Phone: REL. 2037.



HOT WATER BOTTLES

Obtainable from your Wholesalers

THE CANNON RUBBER MANUFACTURERS LTD.
CANNON WORKS: 5a WELBOURNE RD., TOTTENHAM, N.17



There is going to be a big demand for

SOUTHALLS "CELTEX" SOLUBLE SAN TOWELS

Single



1^D

Cartons

ALSO MAKERS OF

"ORIGINAL" & "K" SAN TOWELS

N.H.I. DISPENSING CORKS

SPECIAL OFFER

5J Gross 6 and 8 oz. for 20/-

Sent carriage paid anywhere in United Kingdom
on receipt of cheque or postal order

ORDER WHILST STOCKS LAST!

Samples sent post free willingly

THOMAS SWALES

St. Stephen's Road, LEEDS 9

"SWALES" for SUNDRIES

COTTON WOOL . . .

ABSORBENT LINT. Plain and Boric Lint, Medicated Lint, etc.

BANDAGES. White Open Wove, Grey, Flannel, Domette, Calico, Crepe, etc

ABSORBENT GAUZE. Of all qualities, Plain and Medicated,

FIRST AID. First Aid Dressings, First Aid Cabinets, Sundries, Standard Dressings, etc.

Qualities for all purposes. Coloured for Bacteriological work. Non-Absorbent. Medicated, etc.

- Samples and Prices of any of our manufactures will be gladly supplied on request.
- Our manufactures can be inspected in the Medical Section of British Industries House.

ROBERT BAILEY & SON LTD.,

SURGICAL DRESSING MANUFACTURERS

Dysart St., Great Moor, Stockport, Cheshire. Sentinel House, Southampton Row, London, W.C.1
'Phone: Great Moor 3006 (2 lines) 'Grams: "Undisputed, Offservis, Westcent, London"
'Grams: "Undisputed, Stockport"



A "NATIONAL" Production

"National" Dispensing Bottles

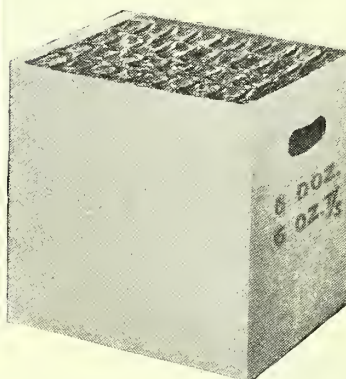
are Strong, Serviceable and Sure-sealing!

**NEATLY PACKED IN 6 DOZEN
NON - RETURNABLE CARTONS**

- ★ CONVENIENT IN SIZE
- ★ EASY TO HANDLE
- ★ UNIFORM IN QUANTITY

ALSO . . . Cork mouth Bottles
WASHED & PAPERED
Screw mouth Bottles
WASHED & CAPPED

SCREW CAPS SUPPLIED in
WHITE - ENAMELLED TIN PLATE
WHITE - ENAMELLED ALUMINIUM
BLACK BAKELITE MOULDED



Vials

HAVE YOU GOOD STOCKS OF
"NATIONAL" VIALS?

Ranging in size $\frac{1}{2}$ oz. up to 3 oz.
Plain or teaspoon graduations
Medium & tall types

MANUFACTURED IN BEST QUALITY
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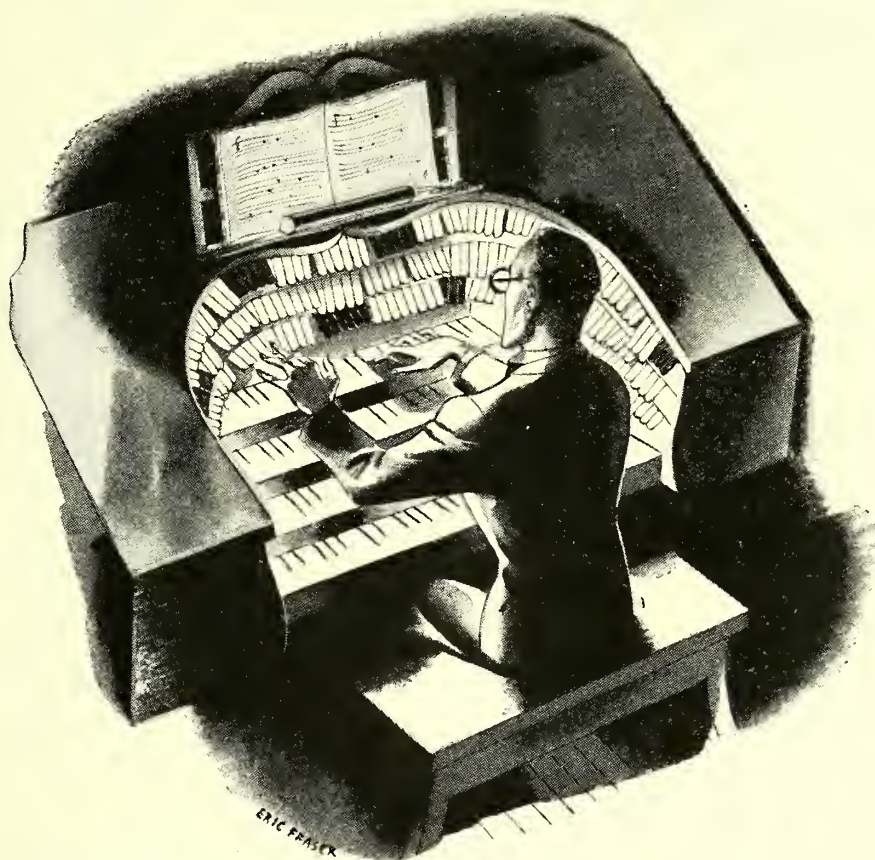
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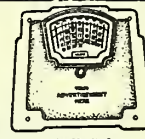
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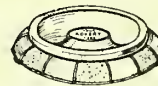
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News of the Week

Key Industry Duty Exemption

The Treasury have made an Order under Section 10 (5) of the Finance Act, 1926, exempting R. MANNITE (R. MANNITOL) from Key Industry Duty from November 17, 1937, until December 31, 1938.

Exemption Order—Ground Sumach Leaves

Under the Import Duties (Exemptions) (No. 12) Order, dated November 15, 1937, GROUND SUMACH LEAVES are exempted from liability to duty under the Import Duties Act, 1932, as from November 17, 1937.

Import Duties Advisory Committee Notices

The Import Duties Advisory Committee give notice of an application for the addition to the Free List of alloys or mixtures of metal, unwrought, in blocks, ingots, cakes, bars and slabs (whether broken or not), containing more than 12 per cent. and not more than 20 per cent. by weight of tin. Any representations which interested parties may desire to make in regard to this application should be addressed in writing to the Secretary, Import Duties Advisory Committee, Shell-Mex House, Strand, London, W.C.2, not later than December 9, 1937.

The Committee announce that they have decided not to make any recommendation in respect of the application previously advertised for an increase in the import duty on sulphite lye.

Proprietary Articles Trade Association

We are advised by the Proprietary Articles Trade Association, 43 Gordon Square, London, W.C.1, of the following addition to and alteration in the Protected List. The retail and wholesale selling prices quoted are the minimum selling prices fixed by the manufacturers and protected by the P.A.T.A.:—

ADDITION.—Squire & Sons, Ltd., Nevrocal 3s. 6d., 31s. 6d. dozen; 6s. 6d., 58s. 6d. dozen. Assorted orders value £5, 3s. 6d. size 30s. dozen, 6s. 6d. size 55s. dozen.

ALTERATION.—Holloway's Pills, Ltd.: As from November 9 the products of this firm are not available as part of combined parcels with Yeast-Vite and/or Iron Jelloids, etc.

The Royal Society

The King has approved the following recommendations made by the Council of the Royal Society for the award of the two Royal medals for the current year:—Professor N. V. Sidgwick, in recognition of his work on valency and on molecular structure; Professor A. H. R. Buller, in recognition of his researches on the general biology and sexuality of the fungi. The following awards, among others, have been made by the president and Council of the Society:—Copley medal to Sir Henry Dale,

in recognition of his important contributions to pharmacology, particularly to the pharmacology of muscle and of neuromuscular transmission; Davy medal to Professor Hans Fischer, in recognition of his work on the chemistry of the porphyrins; Sylvester medal to Professor A. E. H. Love, in recognition of his researches in classical mathematical physics, particularly the mathematical theories of elasticity and hydrodynamics.

The following is a list of those recommended by the president and Council for election to the Council at the anniversary meeting on November 30: *President*, Sir William Bragg; *Treasurer*, Sir Henry Lyons; *Secretaries*, Sir Frank Smith and Professor A. V. Hill; *Foreign Secretary*, Sir Albert Steward; *Other Members of the Council*, Professor R. Whytlaw-Gray, Professor G. P. Thomson, Professor J. Proudman, Professor D. M. S. Watson, Dr. F. L. Pyman, Professor E. J. Salisbury, Professor S. P. Bedson, Professor M. Greenwood, Professor J. Mellanby, Sir Thomas Holland, Dr. G. T. Bennett, Professor J. Chadwick, Professor D. Keilin, Professor J. Graham Kerr, Sir Robert Pickard, Mr. H. R. Ricardo.

Sessional Events

The fourth annual dance of the Mansfield Chemists' Sports Club was held on November 3. Mr. Alan Bacon was M.C.

Mr. G. A. Mallinson, secretary of the National Pharmaceutical Union, spoke at a meeting of the Ipswich and District Branch of the Union held at Ipswich on November 11 under the chairmanship of Mr. S. J. Stearn, J.P. (area representative on the N.P.U. Executive). Mr. Mallinson appealed for more support of the Chemists' Friends scheme, and made suggestions for action by individual members. The resolution was passed "That this meeting thanks Mr. Mallinson for his address and wishes to express its confidence in the ability of the N.P.U. Executive to conduct N.H.I. affairs."

Bolton

At a meeting of the Bolton Branch of the National Pharmaceutical Union on November 4, Mr. E. Ratcliffe (secretary, Wembley and District Branch) dealt with "Current Pharmaceutical Affairs." He felt that the joint committee set up between the Pharmaceutical Society and the N.P.U. would be of great assistance in matters which had been in the past not wholly within the ambit of either body. Although teachers were not recommending pupils to enter pharmacy, he thought that the outlook at present was better than ever. He had been greatly impressed, as a member, by the sincerity of manner with which the Committee of Inquiry had set about its work. In the Chemists' Friends movement was the foundation of a better livelihood for retailers. He outlined the

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growth of the scheme and emphasised that the manufacturers on the list were satisfied with its economic stability. Compared with any other plan which had been laid before retailers it was "head of the list," not excluding the P.A.T.A. He outlined a scheme which they had in mind in Wembley for running simultaneous displays in an annual competition, awards to be based on aggregate points.

During the discussion which followed, the question of prices which should be charged for the dispensing of "inquiry column" recipes was raised. Mr. Ratcliffe suggested retail lists prices *plus* a dispensing fee in keeping with the price level of the area. Mr. J. Lomax suggested that if the price was on the reverse of the prescription, immediately behind the recipe, it would prevent the practice of removal of code price before presentation at another pharmacy. A member asked if toilet preparations were likely to be included in the C.F. scheme, and was asked in reply if we could reasonably claim to be in a position to give full co-operation with the manufacturers of these lines or claim any restriction on them. Mr. Ratcliffe pointed out that there was little at present which could be done with "black sheep" of the trade, but he thought that a code of ethics might make some provision for action under such circumstances. Mr. V. Slater asked what would be the position should the makers of a number of new and similar lines come on the C.F. list. To whom should they give support? The reply stated that if there was a market for these products, which would have appeared whether there was any C.F. scheme or not, it was for the pharmacist to decide which he would recommend. The chairman (Mr. W. Rothwell) urged members to assist their local executive by making their complaints known. In moving a vote of thanks, Councillor W. Crumblehulme said that indicative of the spirit which permeated the Wembley Branch was the presence, along with the speaker, of his nearest competitor.

Durham

The Durham County Branch met on November 4, when Mr. A. Surfleet, Ph.C., and Mr. W. E. Naylor, M.P.S. (Lofthouse & Saltner, Ltd., Hull), gave a demonstration of the tintometer and of fluorescence analysis by the use of the Hanovia-Muir analytic lamp. Mr. F. T. Richardson presided over an attendance of about sixty members and students. The speakers demonstrated the value of the lamp in pharmacy in the identification of drugs and oils and the detection of impurities in them, and showed about fifty specimens, each emitting a characteristic fluorescence. An experiment in analysis by titration under the ultra-violet rays was performed. Of particular interest were olive oil, liquid paraffin and samples of various tinctures, and the different fluorescence of precipitated and prepared chalk. A vote of thanks was proposed by Mr. Hindhaugh.

Enfield

At a meeting of the Enfield and District Chemists' Association, on November 11, the secretary read a report of a meeting of local chemists held at Enfield War Memorial Hospital on October 13 to consider proposals inviting their co-operation with the Hospitals' contributory scheme. The proposals outlined were already incorporated in other hospitals' contributory schemes. These were to the effect that local chemists should grant members of the scheme a discount of 15 per cent. on all purchases of surgical appliances and sick-room requisites recommended by their doctors where the cost exceeded 10s. The following resolution was carried unanimously: "That this meeting of Enfield and District chemists will give their consent to the proposals outlined and will promise their full support in giving the desired service to the members of the hospitals' contributory scheme." No discount will be given on price-protected articles. Mr. A. R. Cross, after discussion, proposed that the resolution agreed to on October 13 should be ratified, and this was carried unanimously. Mr. G. F. Corral addressed the meeting on "The N.H.I. Contract." He urged the deletion of the discounting clause. As there seemed no prospect of any more money for the fund, the solution was for stricter economies in prescribing and the taking of medicine in exact doses. He asked those present to criticise in writing matters concerning N.H.I. There was much discussion before the secretary was instructed to write to each chemist in the district asking for written criticisms on N.H.I. work in general.

Liverpool

In an address on the treatment of disease at the Liverpool Constitutional Club, on November 10, Professor Henry Cohen described how the recognition of two factors—causation and the body's resistance—had led to modern therapeutic methods. The one professional justification for a doctor was that he should treat and prevent disease, he said. In the early days of medicine it was thought that nature provided a specific treatment for every disease, hence the herbal remedies. Some of the drugs of the early days had remained, although their mode of action had been clarified and their sphere of usefulness limited. The whole conception of the treatment had changed, however. It was resolved into a battle between the "invader" and "resister," and in the treatment doctors tried now to discover the cause of the disease and the factors which offered resistance to it.

A stewards' reunion dinner was held at the Adelphi Hotel, Liverpool, on November 10, by way of pendant to this year's British Pharmaceutical Conference meeting in Liverpool. The evening took the form of an "Old English Night." Over 100 stewards and friends welcomed Mr. F. A. Lawman, chairman of the entertainments committee of the Conference, as the guest of honour. A touch of old England was given by the "beadle" and by waiters in "Old English" costume. The whole evening was, as one speaker put it, "the happiest of happy occasions," and Mr. Lawman, in his reply to the toast "Our Guest of Honour," likened the stewards and officials generally to "The Good Companions." He paid special tribute to the work of Mr. H. Humphreys Jones (chairman) and Mr. W. E. Humphreys (secretary). Mr. John Rae (president of the Liverpool Chemists' Association) referred to the value of this association. During the course of the evening, the usual fines associated with "Old English" night were rigorously inflicted, and the proceeds were forwarded to the Benevolent Fund of the Pharmaceutical Society. Mr. W. E. Humphreys (local secretary), replying to a toast, said that one of the best features of the Conference was the fact that they had kept well within the limits of their finances and the Local Executive had refunded 20 per cent. of the subscriptions put up by the guarantors. This balance would have been non-existent but for the generosity of Lord Leverhulme and Lever Brothers, Ltd., who had done so much to make the Liverpool Conference a memorable one. Prior to the dinner, an excellent film of the Conference, the work of Mr. Tristram of Wallasey, was shown. There was a full programme of entertainment, including an unexpected appearance of Mr. Heddlie Nash, who gave his services. He and the other artists were thanked, on the proposal of Mr. Ben Hale.

We have received the following letter:—"At the stewards' reunion dinner of the 1937 Conference held at the Adelphi Hotel, Liverpool, on November 10, collection and fines, etc., in aid of the Benevolent Fund amounted to £20 7s., and this has been distributed amongst the Associations of Liverpool, Birkenhead, Southport and Wallasey. We thank all those who assisted in making this evening a success." The letter is signed by Messrs. Frank Naylor (captain), A. Bradley Dixon (treasurer) and F. Bartlett (secretary).

London

The Wimbledon and District Pharmacists' Association held a whist drive and dance at the Wimbledon Hill Hotel on November 3. Prizes for whist were won by Miss Eniss and Mrs. Pretty; Mr. Mara and Capt. Stafford. Spot prizes in the dance were won by Mr. and Mrs. Weston; Miss Weston and Mr. Haycs; Mrs. Davies and Miss Redpath.

"The South-Eastern Year-Book," the official publication of the South-Eastern Associations, has recently been issued for the session 1937-38. It contains the customary information on the Council of the S.-E. London Chemists' Association and a programme of fixtures. An account is also given of the problems and proposals confronting the South-Eastern Associations.

An "open" meeting of the South-West London Chemists' Association was held on November 12 to hear candidates seeking election or re-election to the Council of the Proprietary Articles Association. Messrs. J. E. Goodall, Wembley, E. Skues, S.W. London, and C. J. Yeates, Devonport, attended. Messrs. F. G. Wells, W. Middlesex, S. N. Pickard, Yorkshire,

sent written statements. The chairman (Mr. E. Neville Browne) said that the Association had come to regard as its prerogative the provision of a platform for P.A.T.A. candidates. Mr. Goodall cited his chairmanship of the Wembley and District Chemists' Association; his membership of Middlesex Insurance Committee and his forty years as a retail pharmacist with no manufacturing or wholesale connexion as his qualifications to represent the interests of retailers on the P.A.T.A. Council. He considered the members of the Retail Section of the Council should have no interest whatever in the other two sections. He pressed for more stringent regulations and increased coding and checking of supplies. The methods of the tobacco trade could be examined to advantage, and with the increase of price cutting in the Metropolis more London members of Council would be an advantage. Pharmacists in their own districts could do much to help the work of the P.A.T.A. Mr. E. Skues, who followed, stated that his three years as member of P.A.T.A. Council has led to a better appreciation of the great difficulties which confront it. His conviction that the P.A.T.A., in spite of certain weaknesses, was an inestimable boon to pharmacists generally had been strengthened. He could not pretend to be satisfied, particularly in suburban London. Throughout the legitimate drug trade cutting was practically non-existent, but this very efficiency made "cutting" attractive to others. So long as cutters could obtain goods in large quantities cutting would be remunerative to them. It was not sufficient for a manufacturer to place his goods on the P.A.T.A. list; he must also make every effort to prevent his goods reaching unauthorised persons. There were too many small wholesalers. Supplies to staff clubs, canteens, etc., had been virtually eliminated. He and certain other retail members refused to admit that P.A.T.A. goods should at any time be supplied to such clubs. He gave figures to show that detective work was now more thoroughly and extensively carried out than before, and with excellent results. Mr. Yeates, who spoke next, said that recent alterations in P.A.T.A. rules showed more consideration for the large than for the small retailer. There was no indication that the proposed £25 fine would be graded. It could prove crippling in the case of a small man but was useless as a deterrent in the case of, for instance, a large Co-operative store. Would the latter not gladly pay the fine but still continue to give dividend on P.A.T.A. goods? The speaker could see no difference between four chemists splitting a large P.A.T.A. parcel and a firm with several branches doing likewise. He suggested that a simple solution could be found to permit this to be done but still prevent the goods from falling into wrong hands. He declared that the retail section of the Council, which should have twelve retailers as its membership, was often found to have members with considerable financial manufacturing or wholesale interests. He asked the electorate to vote for candidates with none but retail interests.

Mr. Wells's statement (read by the chairman) stated that he would press for manufacturers being compelled to code all P.A.T.A. goods. He deplored the intention of the Council to tighten the rules regarding "combined buying," saying that it would be unfair to small traders. He sent figures to show that the proportion of representation on the Council was: Manufacturers 1.34; wholesalers 1.5; retailers 1.850. Moreover, the two former were more closely allied to each other than to the retail section. Mr. Pickard's statement was also read by the chairman. He stated that he had been a member of Council for forty-two years without a break. He was one of the pioneers of P.A.T.A. and had done a lot of the spadework in its formation. He could add to the record of which he was proud, if only from the point of view of experience. The candidates' replies to questions put by Miss Borrowman, Miss Hills, Messrs. Mason, Pretty, Wilkie, Greenbat, Rees, James, Ratcliff, Monaghan, and Begg were as follows:—Mr. Goodall: Period bonus parcels are the prerogative of manufacturers who will scarcely tolerate interference. All goods should be marked with fixed price. Mr. Skues: The £25 fine is at the option of Council. The relation between the promoters of the Chemists' Friends scheme and the P.A.T.A. are better, but I hate to see the former making the same mistakes as the P.A.T.A. made at its outset. Mr. Yeates: "Co-ops." give dividend on P.A.T.A. lines in many cases. A difference between C.F. and P.A.T.A. is that the former is an agreement between two sides, the latter between three. Mr. H. R. Edgecombe thanked the three speakers.

Manchester

On November 11 Mr. Arthur Mortimer, secretary of the Wholesale Drug Trade Association, addressed a joint meeting of the Manchester Pharmaceutical Association and the local Branch of the Pharmaceutical Society. Mr. J. H. Franklin presided. Speaking on "Law and the Pharmacist," Mr. Mortimer said that in this country chemists were subject to more laws and regulations than any other trade or profession. He proceeded to discuss contracts and agreements, and touched upon practically every side of the business of a chemist and druggist. He illustrated his points with entertaining stories, and concluded by giving useful hints, arising out of his own experience and observation, on how to achieve success in carrying on the business of a pharmacist. In the discussion that followed many questions of practical interest were put to Mr. Mortimer, who dealt with them all deftly. A vote of thanks to Mr. Mortimer was proposed by Mr. Grier.

Plymouth

An address was given to the Plymouth and District Branch of the National Pharmaceutical Union, on November 9, by Mr. W. W. Atkinson on "Matters for which the N.P.U. is responsible." Mr. Atkinson drew attention to the continued expansion and progress of the C.F. movement, and showed the benefits which every chemist can bring to himself and his profession by supporting the movement wholeheartedly. A lively debate followed, and in reply to questions Mr. Atkinson agreed that the function of a pharmacist is to supply medicine. The general feeling of the meeting regarding the Society's setting up of a committee to intervene in the N.P.U.'s work of representing chemists in N.H.I. matters was that as the Society handed the work over to the N.P.U. some years ago and as the Union has proved its ability to handle such matters, the Society should leave well alone and only give such help as may be useful.

Portsmouth

Mr. F. W. Adams (assistant secretary of the Pharmaceutical Society) was the visiting guest at the annual dinner and dance of the Portsmouth and District Branch, held at the Royal Beach Hotel, Southsea, on November 10. He responded to the toast of the Society submitted by Dr. Thomas Beaton, chairman of the Portsmouth Division of the British Medical Association and medical superintendent of the City Mental Hospital. Dr. Beaton spoke of the close association between medicine and pharmacy, and praised the work of the Society in producing the Codex and the Extra Pharmacopœia. Dr. Beaton also spoke of the excellent relations which existed locally between the professions. Mr. Adams, replying, said he was particularly pleased to hear this as an official of the Society, because that happy state of affairs did not always prevail. At the Square they had a high regard for the work of the pharmaceutical school at the Portsmouth Municipal College, under Mr. Hemming and Mr. Francis. They had a keen regard for the work and difficulties of the pharmacist in business, and wished to serve him, and not to be regarded as soulless and mechanical bureaucrats bound by red tape. The chairman of the Branch (Mr. H. A. McCoy) was toasted by Mr. W. L. B. Murray (retiring chairman). The toast of "The Guests" was submitted by Mr. T. A. Johnson (secretary of the Entertainment Committee), who mentioned that there were twenty-five students of the local pharmacy school now in business in Portsmouth. Mr. L. B. Benney, M.A. (principal of the College), replied. The final toast was "The Ladies," proposed by Mr. W. R. Atterbury and replied to by Mrs. McCoy.

Reading

A special meeting of the Reading Branch of the Pharmaceutical Society was held at the Great Western Hotel on November 4. Mr. E. C. Cripps in the chair. Mr. W. G. Blair, F.C.I.L., as the organiser, gave an address on "The Berkshire Public Medical Service Scheme." This scheme follows the lines of the model scheme suggested by the British Medical Association and applies to Berkshire and that part of Oxfordshire south of a line drawn East from Shillingford Bridge, but excluding the Borough of Reading, which is already controlled by the Borough of Reading Medical Society. The terms for dispensing are the same as for National Health Insurance, except that payments will be made quarterly and in full. Pricing of

prescriptions is by National Pharmaceutical Union, a charge to be borne by the Committee. The scheme will commence on January 1 next, but not for the whole area at once. Henley, Maidenhead and Wokingham will be followed by Windsor and Newbury. All panel chemists in the area may participate, and the patient is given free choice of chemist. The following took part in discussion: Messrs. Cripps, Falder, Fowden, Knight, Ormrod, Over, Paterson, Pullen, Rix, and Mrs. Sherwood. Points made in the discussion were: That the sole parties to the contract should be the Committee and the chemist; that these should be in duplicate, to facilitate compliance by the chemist with the requirements of the poisons laws and regulations; that doctors be requested, when medicine is required, to supply the patient with a prescription, unless no chemist is available in the district; and that payment be made direct by the Committee. The meeting concluded with a vote of thanks to Mr. Blair.

Southend-on-Sea

On November 9 Mr. G. A. Mallinson (secretary of the National Pharmaceutical Union) addressed the members of the Southend Branch, N.P.U., on "Matters interesting Pharmacists at the Present Time." Mr. Mallinson stated that the progress of the Chemists' Friends scheme had exceeded his anticipations, and appealed for the continued support of chemists. It had been proved that the loss of a few bonuses had been more than covered by the increased sale of strictly C.F. lines. He dealt fully with N.H.I. matters, especially with the present and future policy of the N.P.U., and answered questions. A vote of confidence in the N.P.U. was carried unanimously, and Mr. Mallinson was cordially thanked for his address.

Torquay

At the recent annual meeting of the Torquay and District Branch of the Pharmaceutical Society the following officers were elected:—*Chairman*, W. H. Wyatt; *vice-chairman*, J. C. Bosanko; *treasurer*, J. R. Sarson; *secretary*, T. D. Evans; *auditor*, W. R. Austin. Following the adoption of annual and financial reports, the secretary congratulated Mr. G. A. Clarke on his election as chairman of the Torquay Chamber of Trade and Commerce.

The annual whist drive and dance of the Branch was held on November 3 at the Queen's Hotel, Torquay. The following were the prize-winners:—*Whist*—Miss Patchett, Mrs. Gibbs, Mrs. Hodge, Mrs. Radford, Mr. Burgoyne, and Mr. Bond. Prizes offered for various competitions during the dance were won by Mrs. Gregory, Miss Atkinson, Miss Burr, Mrs. Burgoyne, Mr. Bond, and Mr. Jones.

Miscellaneous

IN THE COURTS.—At Dartford, on November 15, Charles J. Powell (27), described as a medical student, was sentenced to nine months' imprisonment for being in unlawful possession of "dangerous" drugs. It was stated that an appeal might be lodged.

PROTEST AGAINST NON-RESIDENT TRADERS.—At the November meeting of Great Yarmouth Town Council, the town clerk reported that he had submitted to the property committee a letter from Mr. R. C. Hannant, M.P.S., on behalf of Yarmouth Pharmaceutical Association, protesting against trading in the Market Place by non-residents. The committee had decided to take no action.

PARIS EVENTS IN 1938.—The thirtieth Foire de Paris will be held from May 21 to June 6, 1938. At this year's Fair the number of exhibitors was 8,300, representing thirty-three different countries. Particulars from the London Office, 17 Tothill Street, Westminster, S.W.1. The Federation of British Industries have communicated to the Government their opinion that no substantial commercial advantage would accrue to British industry by opening the British Pavilion of the Paris Exhibition next year. The Government has notified the French Government of its intention not to reopen the Pavilion.

Irish Notes

Belfast

During a discussion by Belfast Chamber of Trade on the creation of Boards by the Government, Mr. P. R. W. Shinner said he belonged to two trade organisations, the Pharmaceutical Society of Northern Ireland and the Ulster Chemists' Association; on many matters concerning new legislation the Pharmaceutical Society had been invited by the Home Office to give their opinion. In very few cases had their advice been acted upon. It was generally found that the official body already had its mind made up.

A meeting of the committee of Belfast and District Branch of the Photographic Dealers' Association was held at 73 University Street, Belfast, on October 28. Mr. S. H. Forrest, Ph.C. (president), occupied the chair, and there were also present Messrs. John Bell, J. Martin, R. Poots, Ph.C., James Dundee, Ph.C., E. A. Richey, Ph.C., and R. A. McEwen, Ph. C. (secretary). The secretary was directed to convey the sympathy of the members to Mr. Simmons in his indisposition. Correspondence regarding trade matters was considered, and arrangements made for a lecture to be given by Mr. F. R. Newens, F.R.P.S., on November 23.

The ladies' pharmacy social committee held a successful dance in aid of the Chemists' Benevolent Fund in the Plaza on November 10. The attendance included the Ulster and Connaught rugby teams and officials of the Northern Branch of the Irish Rugby Union. The duties of dance stewards were



GROUP AT BELFAST PHARMACISTS' DANCE

carried out by Mr. S. H. Forrest (president, Pharmaceutical Society of Northern Ireland); Mr. A. Steede (president, Ulster Chemists' Association); Mr. F. Storey (president, Chemists' and Druggists' Society of Northern Ireland and chairman of the Benevolent Fund); Mr. Walter Tate (vice-president, Pharmaceutical Society of Northern Ireland); Mr. R. J. Guiler, and Mr. J. McGregor. The guests included Mr. T. S. Holmes, M.D., and Mrs. Holmes, Mrs. Purce, Captain and Mrs. Hamilton, and Mr. and Mrs. Craigan. Prizes for novelty and old-time dances were given by Mrs. W. Martin, Mrs. F. Storey, Mrs. Badger, Miss L. M. Forrest, Mrs. McGregor, Edwin Taylor, Ltd., Aspro, Ltd., Eucos, Ltd., and R. J. Groves & Son (on behalf of Jane Seymour, Ltd.).

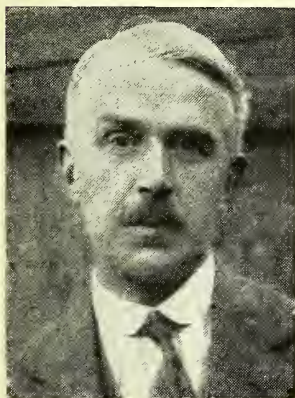
Dublin

Under the auspices of the Dublin Branch of the Photographic Dealers' Association lecture on "The Wonderland of Photography" was given recently by Mr. C. L. Clarke (Kodak, Ltd.). Mr. Clarke, who illustrated his talk with a fine series of slides. Most of the pictures shown were taken with the moderately priced Six-20 Kodak. Dealers were much impressed with this aspect of the lecture. Thanks were passed to Mr. Clarke on the motion of Mr. G. A. McLean Lee, M.P.S.I., chairman of the Branch, seconded by Mr. P. F. McGrath, M.P.S.I.

A number of challenge trophies have been presented for the photographic exhibition to be held by the Dublin Branch of the P.D.A. on November 26. In addition to three cash prizes of two guineas each the following five cups (as illustrated) are being awarded: (1) The P.D.A. Challenge Cup, for the best

photograph entered for the Exhibition; (2) Challenge Trophy presented by the Wholesale Section of the Irish Drug Association for competition amongst chemist dealers in Class A; (3) The Gevaert Cup to be awarded in Class C open to dealers and assistants; (4) cup presented by the Federated Photographic Manufacturers in Section 1 of Class A open to professional photographers and other photographic dealers; (5) Challenge Trophy presented by the Federated Photographic Manufacturers in Section 1 of Class B open to assistants of professional photographers and other purely photographic dealers. During the exhibition Mr. Frank Newens, A.R.P.S., is giving a lecture on "Colour Photography."

Mr. Thomas Cecil Scott, M.P.S.I., who has been co-opted a member of the Council of the Pharmaceutical Society of



Mr. T. C. Scott

Ireland, was an outstanding president of the Irish Drug Association. During the two years he occupied the chair (1934-36) the organisation, from being mainly a Dublin body was spread throughout the entire Free State and became a national organisation. It was also during Mr. Scott's presidency that the leakage of chemists' lines to non-chemist traders was effectively checked by the creation of an Approved list of Manufacturers and Wholesalers.

Mr. John J. Mackey, L.R.C.P. and S.I., Dun Laoghaire, who has been elected examiner in pharmacy for the Licence examination by the Pharmaceutical Society of Ireland, qualified as a pharmacist in February 1919 before taking up the

study of medicine. After taking his diploma in medicine, Dr. Mackey took post-graduate courses in ophthalmology in London and Dublin, and has specialised as an oculist, in which capacity he now practises in Dun Laoghaire, in addition to his work as a physician. He is also medical attendant to the Dominican Convent, Dun Laoghaire.

Scottish Notes

British Pharmaceutical Conference

The Edinburgh meeting of the British Pharmaceutical Conference next year has been fixed for Monday, September 12, to Friday, September 16, inclusive. The Local Committee, under the chairmanship of Dr. J. J. Blackie, is already at work on the details of the programme. The secretary is Mr. C. G. Drummond.

Edinburgh

Mr. George Fowle Merson, Ph.C., has decided to relinquish the managing directorship of G. F. Merson, Ltd., manufacturers of surgical sutures. Mr. Merson, who founded the firm over twenty-two years ago, will be succeeded by Mr. Eldred John Holder, B.Pharm., Ph.C., who has for some years controlled the production and scientific departments of the firm.

Representatives of many shop and trading interests were present at a meeting held in Edinburgh last week to hear reports on the progress of negotiations regarding the proposed regulation of wages and hours in the distributive trades. Mr. R. Wilson, chairman of the Scottish Distributive Trades Federation, presided, and the principal address was given by Mr. H. J. Dryer, secretary to the Scottish Distributive Traders Co-ordinated Committee. Mr. Dryer said one of the main recommendations arrived at had been that any regulations regarding wages, hours and conditions should be the subject of agreement between employers' representatives and the trade unions' representatives with a minimum of Government interference. If the distributive trades were to carry out the wishes of the Ministry of Labour regarding the regulation of wages, hours and conditions it was far better that the trades concerned should deal with it themselves. A discussion followed.

Miscellaneous

OLD PHARMACISTS.—"It might be interesting," writes a correspondent, "to know who is the oldest practising pharmacist in the country, as the lay Press announcement of the death of Mr. Gilbert Graham, Girvan, aged seventy-six, represented him as the oldest practising chemist in Scotland. Edinburgh shelters several old chemists, including Mr. Rutherford Hill. Mr. Alexander G. Bruce, senr., is in his eighty-first year.

Topical Reflections

By Xrayser

Mr. Mallinson

has spoken out (*C. & D.*, November 13, pp. 567, 569); I feel sure that chemists in all parts of the country will read his speech at a meeting of the Bradford Branch of the National Pharmaceutical Union with feelings of relief. He has made the position perfectly clear on the subject of discounting; all his figures are not, apparently, given in your report, but it is quite plain that he and his Executive have accomplished good work since they decided to accept liability for the payment of the chemists rather than leave the matter in the hands of the Minister of Health. Mr. Mallinson used a somewhat forcible word when he said that certain members of the Council were advocating a return to "interference" in N.H.I. matters. The word is justified. He reminded his hearers that a joint committee of the Society and the N.P.U. had been set up to prevent overlapping in N.H.I. matters, but in spite of this Mr. Parry and Mr. Rowsell, both men with long experience in N.H.I. matters, want another committee, the main object of which is apparently to "ginger up" the Executive of the N.P.U. Why this new-found zeal? Why this desire to take on work which, as Mr. Mallinson reminded them, they were glad to get rid of seventeen years ago? I believe the answer is to be found in the report of the Committee of Inquiry set up recently (page 573). If the Pharmaceutical Society has power to implement the findings of this Committee upon the subjects of inquiry, there will be little need of the N.P.U. Those at the head of the Society appear to have an overweening ambition to run pharmacy along their own lines; more power to the N.P.U. in its fight against such aims.

You Have Rendered A Service

to pharmacists in drawing their attention (p. 568) to the possibilities of developing a service for customers in dispensing diets prescribed by dieticians, who are often medical men. This office of dietician is one of comparatively recent appearance. The function of the old family doctor was along somewhat similar lines, inasmuch as he would often indicate to the patient suitable meals as an adjunct to the bottle of medicine he was prescribing or dispensing. That was before the importance of diet in the treatment of disease was recognised as it is to-day. Then came the "food faddists" (so regarded in those days), who decreed that man should weigh his food and more often than not should abstain from the flesh of animals. From this cult came into being many health food shops, and these are growing in number. All this has meant less business for the pharmacist, who found that the sales of foods in tins were declining and were not being replaced. It is now the turn of the dietician to take up the running, and the pharmacist should be in a position to "dispense" his formulas. The principles of modern dieting are largely based upon a knowledge of minerals and their action in nutrition, and surely the chemist should know as much about this as any food store. This vogue of special dieting to suit certain cases is illustrated by the growing use of strained vegetables in infant feeding. Even the bazaars now have them, an indication of how up-to-date they are in their reactions to the needs of their customers. Pharmacists should wake up and get some of this food business before it is too late.

Legal Reports

Zinc Ointment.—At Birkenhead Police Court, on November 12, Mr. G. Holland, B.Sc., manufacturing chemist, Hullard Street, Old Trafford, Manchester, was fined £3 3s., with 31s. 6d. costs, for having sold zinc ointment 83 per cent. deficient in zinc oxide. Mr. B. J. A. Pratt, prosecuting, said that a corporation inspector called at the defendant's stall in Birkenhead Market Hall and bought four jars of zinc ointment. When the contents were analysed it was found that there was only 2.5 per cent. of zinc oxide. The inspector said the jars were labelled "price 7½d.," but he paid only 2d. for each of the four jars he bought. Professor W. H. Roberts, Liverpool city analyst, gave formal evidence. The defendant said that the ointment was made before May. In filling the jars there had been separation of the zinc oxide.

The Right to a Patent.—Mr. Justice Farwell, giving judgment in an action which came before him on November 8, made a declaration that the Triplex Safety Glass Co., Ltd., Albemarle Street, W.1, were entitled to call upon the defendant, Mr. Leslie V. D. Scolah, Northfield Road, King's Norton, Birmingham, to assign to them a patent relating to a method of making acrylic acid, an adhesive used in the manufacture of safety glass. Mr. Lionel Heald, K.C., and Mr. Basil Drewe appeared for the company. Mr. Richard A. Willes represented Mr. Scolah. Mr. Justice Farwell said that in 1932 Mr. Scolah, who was formerly an assistant chemist in the service of the Triplex company, was instructed to discover a method of producing acrylic acid. He made the discovery "by a lucky accident," and informed his employers, who did nothing at that time to take out a patent. Mr. Scolah left the company, and deciding that the acid would be useful as an adhesive for his own business, took out a patent to protect his discovery. So long as the patent remained in the name of Mr. Scolah it would prevent the company making use of the substance as an adhesive. The company offered Mr. Scolah very fair terms to assign the patent to them, but they were not accepted. His lordship said it was a term of all employment that any discovery or invention made in the course of the employment by an employee doing what he was instructed to do during working hours, and using his employer's materials, was the property of the employer and not of the employee. "As, in my judgment," added his lordship, "the defendant became the trustee of this discovery, and by reason of the fact that he made it while in the employment of the company, then when the beneficiary calls upon him to assign the property he is bound to do so."

Vinegar.—At Cavan Circuit Court, on November 11, Judge Sheehy allowed the appeal of Thomas Donohue, merchant, Ballyconnell, against a fine of 10s. with costs and expenses in the District Court on a summons for having sold malt vinegar which was not of the nature, substance and quality demanded, and, as alleged, to the prejudice of the purchaser. Mr. Bernard G. Fagan, public analyst, Dublin, said that in his opinion the sample submitted to him in this case was not a pure malt vinegar. Its chemical characteristics showed that it was a distilled vinegar, and in this process the removal of portion of the solids would lessen its food value. Mr. Fitzsimons, B.L., for the appellant: Is vinegar a food?—It is a condiment, anyway. Mr. F. Duffy, for the prosecutor: Vinegar is described as a food in the 1899 Act. For the defence, Mr. G. Walls (managing director, T. Jennings, co. Cork) said that his firm had been manufacturing vinegar for 150 years by the distillation process. They produced three kinds of vinegar, and that sold to the defendant was brown malt, and was made from cereals. They did not make any artificial vinegar. Mr. D. Sullivan, city analyst, Cork, said that the sample in question was genuine brown malt vinegar, and of the nature and quality demanded. He agreed with Mr. Fagan's percentages, but not with his conclusions. The method employed by Messrs. Jennings was the recognised method for malt vinegar. The appellant stated that he sold the vinegar as he received it from the bottlers. Judge Sheehy, in reversing the conviction, said that he did not believe that the vinegar sold had been adulterated in any way, or that it was to the prejudice of the purchaser. He had no evidence before him that the process of distillation removed properties which would be beneficial to the purchaser, or added qualities that might be harmful. This distilled malt vinegar was being sold for a very long time, and it seemed that the public did not want an article with a sediment in it.

Company News

P.C. means Private Company and R.O. Registered Office

J. RAMAGE & Co., LTD. (P.C.).—Capital £200. Objects: To carry on the business of manufacturers of and dealers in chemicals, drugs, medicines, etc. John Ramage, 340 Southcroft Road, S.W.16, director. R.O.: 67 Peckham Rye, S.E.15.

NEWTON & Co. (YEOVIL), LTD. (P.C.).—Capital £2,000. Objects: To carry on the business of chemists, druggists, herbalists, opticians, etc. Arthur Newton, Holly Bank, 39 Handford Hill, Yeovil, pharmacist, director.

BENNETT, BRIANT & Co., LTD. (P.C.).—Capital £4,000. Objects: To carry on the business of manufacturers of and dealers in toilet requisites, chemists, etc. John H. Briant, The Mill House, Birch, Colchester, director. R.O.: 17 Paper Street, E.C.

FRANK WOODWARD, LTD. (P.C.).—Capital £750. Objects: To carry on the business of manufacturers and refiners of oils and fats, chemists, drysalts, etc. Frank Woodward, 41 The Gardens, West Harrow, chemist, director. R.O.: 27 Cranbourne Parade, Mutton Lane, Potters Bar.

TAMPAX, LTD. (P.C.).—Capital £60,000. Objects: To manufacture absorbent tampons or other catamenial devices pursuant to certain patents; to sell and export the same pursuant to licences to be granted by "Tampax Incorporated" (incorporated in Delaware, U.S.A.), and to carry on the business of wholesale and retail manufacturers of and dealers in proprietary articles, surgical, hospital, laboratory and scientific equipment, chemicals, drugs, medicines, toilet preparations, etc. The first directors are Ellery W. Mann, Robert A. McInnis, Arthur E. Illingworth, John T. Bett, Rt. Hon. Lord Strabolgi, Jardine White and William C. Wellis. Solicitors: Clarke, Square & Co., 28 Bolton Street, W.1.

ADHESIVE TAPES, LTD. (P.C.).—Capital £6,300. Objects: To adopt an agreement with Geo. Grey, Henry Joseph and Colin P. Kininmonth for the acquisition of the benefit of an agreement for the secret processes granted by the Société Anonyme Compagnie Industrielle de Matériel Aéronautique for the manufacture of adhesive tapes, and to carry on the business of manufacturers of and dealers in all kinds of adhesive or coated material, etc. Edward L. Joseph, 73 Oxford Gardens, W.10 (director of Ozonair, Ltd.), Guy C. Vaughan-Morgau, 55 Horton Street, W.8 (director of C. J. Fox & Co., Ltd., and Aerotex, Ltd.), Colin P. Kininmonth, 26 South Grove House, N.6 (director of Wilson Thwaits & Kininmonth, Ltd.), directors. R.O.: Africa House, Kingsway, W.C.2.

DR. GILBERTS BIOCHEMICALS, LTD.—In the Chancery Division, on November 15, Mr. Justice Simonds had before him a petition by Miss Alice Mable Garner, Miss Mary Eliza Garner and Miss Louisa Amy Garner, of Wickham Avenue, North Cheam, for the compulsory winding-up of Dr. Gilberts Biochemicals, Ltd. The petition was opposed. Mr. Herbert Hart, for the petitioners and supporting shareholders, said the company sold medicated compounds and liquids manufactured and supplied by Dr. Gilbert, who opposed the petition. The company was formed in May 1935 and had an issued capital of £3,390. Petitioners were creditors for £1,142, representing loans to the company. It was alleged that the company was insolvent. At an extraordinary general meeting of the company a resolution was passed that by reason of its liabilities the company could not continue this business and should be wound up voluntarily. Mr. Andrew Clark, for Dr. Henry Gilbert, said it was alleged that the company was indebted to the doctor and his wife for £5,245 for goods supplied to the company and to Dr. Gilbert for £500 money lent. Counsel submitted that anything that could be done in a compulsory winding-up could be done just as well by an independent voluntary liquidator. There was a direct conflict of evidence in the matter, but there was no evidence that the majority of the shareholders desired a compulsory order. None of the trade creditors had expressed any opinion. Dr. Gilbert was most anxious that there should be the fullest investigation, and if an order was made he asked his lordship to reserve the question of his costs. His lordship said he would make a compulsory winding-up order, but this did not indicate any view as to the allegations made. The costs of Dr. Gilbert would be reserved.

Pharmaceutical Society of Ireland

Council Meeting

THE November Council meeting was held on November 9, Mr. B. P. Hickey (president) in the chair. Other members of the Council present were Messrs. P. C. Cahill, F. J. Fitzpatrick, C. Cremen, J. Duggan, P. Brooke Kelly, J. Gleeson, P. J. Fielding, M. J. Kieran, W. J. McKnight, J. A. O'Rourke, M. J. Parkes, J. V. McKeever, D. W. P. Boyd, J. K. Whelehan, Sir Thomas Robinson and Miss F. M. Flood. Apologies for absence were received from Dr. J. A. Mitchell and Mr. J. T. Dwyer.

CONSULTATION WITH THE IRISH DRUG ASSOCIATION

THE REGISTRAR (Mr. J. J. Kerr) said there was a matter of urgency he wished to bring before the Council. During the preceding week he had a visit from Mr. Philip Brady, president of the Irish Drug Association. Mr. Brady intimated that a delegation from his Association would like to consult with representatives of the Society on a number of matters, including the 1908 Act. Instead of a deputation being received by the Council from the I.D.A., he (Mr. Kerr) suggested that perhaps a small committee of the Council with the honorary officers would meet a deputation from the I.D.A. for a discussion on those questions of interest, as such a procedure was likely to be more effective. Mr. Brady agreed with that proposal.

MR. O'ROURKE: It would be much more satisfactory than a formal deputation if the honorary officers of the Society could meet them.

MR. FITZPATRICK: What I had in mind is this—the Society is an academic body and cannot discuss business matters at all, while the Irish Drug Association deals with the business side. I think there should be the closest co-operation between the two bodies. It would be very desirable to have this heart-to-heart talk to see what is in their minds. Any members of the Council, who would like to do so, should come in on those talks. It will not be a Council meeting. In joint discussion we can see what can be done to advance the common cause of pharmacy. The I.D.A. is the bread-and-butter side we all have to look after. (Sir Thomas Robinson: Hear, hear.) I am quite willing to go into these discussions, but I think other members should come in as well. Mr. Kerr can tell the I.D.A. we are only too willing to meet them and see what is in their minds. I believe it is something in connexion with the 1908 Act. It was mentioned at the annual meeting. If they came along they can see the difficulties and may be able to suggest an easy solution. If the Council thinks it is wise to have the meeting Mr. Kerr can arrange with Mr. Brady.

MR. PARKES: The meeting is merely for the purpose of having a discussion.

MR. FITZPATRICK: Yes, and any member of the Council who wishes can come in. You cannot have a discussion at this Council on business matters.

MR. KIERAN: There are only two ways we can meet them, either to receive a deputation from the I.D.A. or meet them unofficially.

SIR THOMAS ROBINSON: Why cannot we meet them officially?

MR. FITZPATRICK: We are not a trade body.

MR. KIERAN: You cannot enter into trade matters.

SIR THOMAS ROBINSON: You appointed a committee to meet the druggists in connexion with the new Act. I think it would be no harm to appoint a subcommittee of the Council to meet them.

MR. FITZPATRICK: If you do that it is official.

MR. CAHILL said they wanted half a dozen people from the Council to meet half a dozen from the other side.

SIR THOMAS ROBINSON: Try it, anyhow, Mr. President. It's worth trying.

It was agreed that the president, vice-president, treasurer and Mr. O'Rourke would meet the I.D.A. delegation.

RESIGNATION OF A MEMBER

A letter was read from Mr. D. Warwick resigning membership of the Council and expressing his appreciation of the confidence and courtesy always extended to him by his colleagues while a councillor.

THE PRESIDENT: I am sure we are all very sorry to hear of Mr. Warwick's resignation. He gave valuable service for many years on this Council as a past-president, an examiner and a member of the Council.

MR. O'ROURKE: We accept Mr. Warwick's resignation with regret, and thank him for his service on the Council for many years.

REGISTRATION ITEMS

The following, who submitted Matriculation certificates, were granted Preliminary registration: Misses R. M. Barrett, J. L. Burke, Nora G. Burns, P. B. Connolly, E. J. Fleming, N. T. Murray, M. MacCarthy, C. M. M. McCutcheon, E. P. M. McDonogh, M. M. O'Dwyer, W. Rhatigan. Messrs. P. M. Brennan, T. Carley, N. F. Dillon, P. J. Flanagan, H. S. Knight, P. J. Larkin, T. J. Leahy, J. Mellerick, J. J. Moloney, E. J. Nolan, D. P. O'Shea, E. A. Rogers, F. J. Rouse, M. Tobin, and D. K. Walsh.

Mr. G. Morewood and Mr. J. J. Macartan submitted certificates and declarations, and requested to be restored to the Register of Pharmaceutical Chemists. Both applications were granted.

REPORTS FROM COMMITTEES

The report of the House Committee was submitted and approved. The report of the Law Committee was approved subject to the president's motion regarding poisons regulations being deferred for future consideration. The report of the Certificates and Declarations Committee was also submitted and approved.

REPORTS FROM EXAMINERS

The examiners to the recent Licence, Assistants' and Registered Druggist examinations, reporting to the Council, stated that twenty-one candidates presented themselves for the Licence examination, of whom two members passed with honours and four passed. Twenty-six candidates presented themselves for the Assistants' examination, of whom twelve passed. The single candidate for the R.D. examination failed.

CHANGES OF ADDRESS

The following changes of address were reported: Miss H. O'Donovan, M.P.S.I., Asst., from c/o Howard's Medical Hall, Kanturk, to 31 Bandon Road, Cork. Mr. P. J. O'Ryan Hayes, M.P.S.I., Asst., from 130 James's Street, Dublin, to 7 Merrion Square, Dublin. Mr. M. Power, M.P.S.I., Asst., from Kilmarry, Feenagh, Charleville, co. Limerick, to 56 William Street, Limerick. Mrs. F. Moran, L.P.S.I., from Bay View, Schull, co. Cork, to 2 Sunnyside Villas, Upper Strand, Youghal, co. Cork. Mr. T. M. A. Dromgoole, L.P.S.I., from The Pharmacy, Kilcock, co. Kildare, to 8 Adelaide Street, Dun Laoghaire. Mr. C. J. Farren, L.P.S.I., from Victoria Park to Main Street, Buncrana, co. Donegal. Mr. T. Mulvihill, L.P.S.I., from O'Leary's Medical Hall, Boyle, co. Roscommon, to Main Street, Killorglin, co. Kerry. Mr. H. Mackey, L.P.S.I., from 178 New North Road, Islington, London, N.1, to 98 Mount Haigh, Upper George Street, Dun Laoghaire. Mr. H. McEver, L.P.S.I., from High Street, Newmarket, co. Cork, to 17 Winthrop Street, Cork. Mr. J. F. Ranaghan, L.P.S.I., from 545 Manhattan Avenue to 708 W. 192 Street, New York. Mr. N. E. Sutton, L.P.S.I., from c/o P. & O. Steam Navigation Co., 122 Leadenhall Street, London, E.C., to 35 Merrion Square, Dublin. Mr. Thos. Bayne, L.P.S.I., from Blandfield Chemical Works, Edinburgh, to "Craigerin," 21 Belford Avenue, Edinburgh. Mr. M. McNally, R.D., from 7 Vernon Terrace to 46 Frankfort Avenue, Rathgar, Dublin.

DEATHS AND REMOVALS FROM REGISTER

The registrar reported on the deaths of M. J. Usher, L.P.S.I., R. Barron, L.P.S.I., and J. Thompson, L.P.S.I.

The registrar reported the removal of the following names under Section 25 of the 1875 Act: S. P. Moloney, J. H. Davis, J. A. Fretton, M. Malone, and J. A. Bingham.

(To be continued)

Mr. Parry's Reply

MR. MALLINSON'S ADDRESS at Bradford, repeated at Cardiff, makes very painful reading to anyone who sincerely has the welfare of pharmacy at heart, for it indicates that the N.P.U. Executive, having no hope whatsoever within itself of getting any improvement in N.H.I. terms, prefers rudely to reject the perfectly sincere and unselfish offer of the Society's Council to assist. The dog-in-the-manger attitude is acclaimed by Bradford and Cardiff as worthy of a vote of confidence in the N.P.U., and presumably a snub to the Society for daring to offer help.

It shows, further, how very difficult it is for any man, however honest or sincere his motives, to take up the cudgels on behalf of pharmacists. I had been warned in advance—from N.P.U. sources—that I would be charged with "electioneering" if I persisted with my motion. This threat only amused me at the time, because my record of service belies any attempt ever to seek or serve a personal interest. It was this feeling of security, based on a long and clean record, sealed by repeated evidence of national confidence and having already received the highest honours available, that encouraged me to carry on.

That Mr. Mallinson was well aware of this fact is proved by the manner in which he has gone out of his way repeatedly to couple my name with Mr. Rowsell's. I call this quite unfair, for knowing that Mr. Rowsell's name acted like a red rag to Queen Square, I publicly requested him not to second my amended motion, and Mr. Mallinson is aware that Mr. Deacon was the seconder of the motion carried by the Council. I could well enlarge on this point, particularly regarding the methods of the N.P.U. Executive in attacking or permitting attacks on former distinguished members of the Executive. Mr. Rowsell played only a very small part in supporting the motion. There was no justification or excuse for coupling his name with mine. Let me here point out another sign of "weakness." Mr. Mallinson refers to Mr. Rowsell and myself as "two old men." The gibe is obvious, new blood, etc. True, my hair has turned grey in the service of pharmacy, unlike my contemporary Mr. Mallinson; but granted good health, I am still as young and as capable of very vigorous action as those who are trying to shelve the real issue. The reference was uncalled for. I do not like to infer that Mr. Mallinson was guilty of "rancour," as we have always been good friends. He has erected an easy target to shoot at and needlessly exposed himself to very serious questionings regarding the confidence hitherto reposed in him.

"Revolutionary" Views

At Bradford Mr. Mallinson, under the guise of "courtesy," diplomatically and very adroitly steered clear of Mr. Wilson, who had published views far more revolutionary than mine. It was easier . . . to attack me and secure a vote of confidence by attributing to myself words never uttered and to the Council actions never contemplated. This sort of argument, supplemented by baseless suggestions, is perhaps due to Mr. Mallinson's legal training, but . . . let us examine his side of the case. What is the N.P.U. proposition for solving the N.H.I. problem? As expressed it seems to me only one more attempt to confuse the pharmaceutical mind with impressive figures which cannot at the time be absorbed, then with a string of words (rhetoric(?)) and a forceful presentation of "what should be done but can't" thus inducing a form of trance or contentment with a policy of "do nothing." That is my conclusion after Mr. Mallinson's speech. It was all news to me and came as a shock—bad news that almost caused despair.

I had stumbled accidentally on a carefully guarded secret which would only be revealed at the last moment and with the usual trappings and dramatic accessories of the coming Conference. Mr. Mallinson should have been more discreet, for now the overburdened, underpaid panel chemist will have time to think it over and, if necessary, to organise opposition to the N.P.U. programme. He might even use the machinery of the pharmaceutical committees, seeking the backing of the Council and make a real attempt to get some adequate return for his responsible service. True, this would mean "divided" forces, which some of us would regret; but surely any kind of real, well-directed action is better than . . . expediency. Mr. Mallinson admits being a "touchy" person who cannot

bear "interference." Does this mean that he refuses to accept any suggestion or form of assistance unless thought out by himself or approved by his Committee?

He further suggests that "all the chemists want is the removal of the discounting clause." Surely this cannot be true. We therefore must conclude that this is the secret of the proposed N.H.I. negotiations; and when he admits there is little hope of securing even this concession because there is no money at the Ministry, it must mean that all the rest is talk—empty, purposeless talk like that at Bradford and Cardiff ending in futility and a vote of confidence for doing—nothing.

I could eliminate practically every statement made by Mr. Mallinson to bolster up his argument. For example, it is not true that seventeen years ago the Council was glad to get rid of N.H.I. Most of us at the time thought it was a mistake, and subsequent events have developed little to remove the doubt. It was the Society who got this work restricted to chemists. After seventeen years of doing its best, the N.P.U. Executive has hopelessly failed to secure even common justice as remuneration, and the gibe at the statutory restriction imposed on the Council comes ill from those responsible for N.H.I. discipline—the real origin of much of our present trouble. There is nothing as a result of the Jenkin case to prevent the Council carrying on the work.

Discussion in Public

To remove any form of misrepresentation I insisted that the entire discussion on my motion should be held in public. It was fully reported, and Mr. Mallinson is well aware there was never a word nor intention directed to take away any section of work from the N.P.U. The only offer made was an offer of help, put into practical form by the formation of a committee which could act for this specific purpose. Mr. Mallinson calls this "interference." It was not intended, neither was there any secret motive behind the plain facts. Now, in view of Mr. Mallinson's outburst, the position will have to be reconsidered and the whole matter may have to be viewed from a new angle. Whether Mr. Mallinson likes it or not, it is an essential duty of the Council, included in its Charter, confirmed by Parliament, "to look after the business interests of chemists."

The bodies primarily concerned are the pharmaceutical committees and the N.H.I. chemists. Are they content to see the boat drifting for ever out of their reach? Why cry out when it is too late? There is barely time. If the branches agree that all we chemists want is the removal of the discounting clause, it is good-bye to all hope of ever receiving adequate payment for service. My submission is that we require a great deal more, that we have a right to more, that our claim is reasonable, that every means available should be utilised to enforce these rights, regardless of empty threats or vague consequences.

In my opinion we require (1) a substantial increase on dispensing fees, (2) a percentage cover on cost of drugs, and (3) a more reasonable minimum charge than the ridiculous tenth of a penny. Perhaps those who share these views or otherwise would like to communicate with me—just a postcard, please—to: *L. Moreton Parry, 130 Princes Road, Liverpool, 8.*

New Books

Cooper, J. W., and Dyer, F. J.—*Dispensing for Pharmaceutical Students*. 7½ in. by 4½ in. Pp. 465. 8s. 6d. Pitman & Sons, Ltd., Parker Street, London, W.C.2. [This text-book, now in its sixth edition, has been revised, and includes changes necessitated by the publication of the B.P. Addendum, 1936.]

The Calendar of the Pharmaceutical Society of Great Britain, 1937-38. 8½ in. 5½ in. Pp. 453. 5s. The Society, 16 and 17 Bloomsbury Square, London, W.C.1. [Contains thirty-one pages more than the Society's Calendar for 1936-37. Special contributions include notes on recent work in pharmaceuticals, pharmacology, pharmaceutical chemistry and pharmacognosy. Facing the title-page is a portrait of his Majesty the King. It may be suggested that the addition of a brief preface to a manual of this scope is desirable.]

Glasgow Presentation and Lecture

A MEETING of the Glasgow and South-Western Scottish Branch of the Pharmaceutical Society was held in the Gordon Restaurant, Glasgow, on November 10. MR. A. B. GILMOUR (chairman of the Branch), who presided, called on Mr. Thomas Guthrie, vice-president of the Pharmaceutical Society, to make a presentation to Professor J. P. Todd, Ph.D., Ph.C., of the Chair of Pharmacy, Royal Technical College, Glasgow. MR. GUTHRIE said it was an honour and a privilege to show their respect for James Prior Todd, who had recently been appointed as Professor of Pharmacy in the College. They all rejoiced in his elevation to the Chair of Pharmacy, and had subscribed to present him with a solid silver tea and coffee service. Mr. Guthrie asked Professor Todd to accept it as a token of regard from friends and colleagues.

PROFESSOR TODD, replying, said he was deeply appreciative of their handsome gift. He recognised it as an expression of their goodwill. He always felt that even though a student qualified, he was unsuccessful unless he left the College as his friend. His student friends were in every part of the world. He knew there was a testimonial on foot and would have liked to have passed it on for the benefit of the students, but that was impossible. His idea was to hand over his testimonial to provide the nucleus of a fund for the provision of medals. Referring to the growth of pharmacy during his own twenty years' experience, Professor Todd said that when he went to the Royal Technical College seventeen years ago he was the staff member himself and their equipment was very meagre. Now they had a staff of about thirty. The establishment of the chair was a distinct gain to pharmacy in the West of Scotland. He was proud to hold the position, and thanked them for the gift, which would always remind him of their friendship.

THE CHAIRMAN said that they now had £105 in the Anthony McMillan Fund for providing prizes for pharmacy students at the Royal Technical College, and would welcome further contributions. He introduced Mr. H. Berry, B.Sc., A.I.C., Ph.C., Dean of the College of the Pharmaceutical Society, who gave an address on



Photo] [van Rooyen
PROFESSOR J. P. TODD

Disinfectants for Specific Purposes

[ABSTRACT]

THE best-known test for bactericidal efficiency is the Rideal-Walker test, which was first published in 1903. Several modifications have been introduced not only by the authors but also by other workers. The British Standards Institution in 1934 published details of a standard Rideal-Walker test which is now the generally accepted standard for the buying and selling of disinfectants in this country. The test has been most carefully devised to reduce to a minimum the many variable factors. Thus it specifies a particular strain of *B. typhosus* of a certain age of subculture. Variation due to temperature is controlled by specifying 18° C. and the time of exposure of the test organisms to disinfectant is stated. Pure phenol is the standard of reference. The strictest adherence to every detail is essential if concordant results are to be obtained. But even when a value is obtained by this test it is important to realise exactly what that value means and what its limitations are.

It is an interesting fact that when bacteria die as a result of exposure to a disinfectant, they do so in an orderly manner. Thus as long ago as 1897 it was shown by Ikeda (who used data obtained by Krönig and Paul) that when the logarithms of the number of survivors are plotted against the elapsed time, a straight line is produced. In fact, when the temperature and concentration are constant, the rate of killing appears to be in agreement with that of a monomolecular reaction.

This has been confirmed by many workers since, and although there is some disagreement about the reasons for it, it remains a very valuable observation.

A solution of a substance which at ordinary temperature may have but a weak bactericidal value may have an appreciable one at, say, 60° C.—a point of much importance in the sterilisation of injectable solutions. Conversely, in the case of a preparation which is relying upon an antiseptic to retard bacterial or fungoid growth, cooling may take away the protection of the antiseptic before a temperature is reached which will inhibit growth. This has happened in the case of a mould and a higher phenol. It is probably quite wrong to keep an injection containing an antiseptic such as 0.5 per cent. phenol in a cool place.

To summarise, disinfectants differ in three independent ways and there are required three constants to indicate their relative efficiencies. Given these three constants, results obtained at any one concentration, duration of time and temperature can be transformed into any other set of conditions. This is not so with a Rideal-Walker coefficient, which gives little information and, unless its exact meaning is understood, may lead to a sense of false security. Those who designed the Rideal-Walker test and those who use it for the evaluation of disinfectants are fully aware of the limitations of the test, but claim that the test does fulfil a useful function of making some comparison between disinfectants.

The problem of disinfecting the skin, and by that I mean the unbroken skin, is of great importance to the surgeon, the midwife, and to pharmacists and others engaged in the aseptic handling of sterile material. We know quite well that the deeper tissues are relatively unable to protect themselves against free access of bacteria from without, and the skin was regarded as a mechanical barrier against such invasion. Of recent years, however, evidence has accumulated that the skin possesses some biological mechanism which enables it to free itself fairly rapidly from the majority of organisms which fall upon it, leaving a bacterial flora which is characteristic. Interesting data in this connexion have been contributed from two main sources, Arnold and others in America and Colebrook and others in this country.

In pharmaceutical sterilisation practice the necessity of sterilising surfaces and apparatus arises. Thus it has been our custom to sterilise a porcelain mortar by first a thorough washing with soap and water and a good rinsing under the tap, finally rinsing with a little alcohol to remove water and then drying off over a bunsen flame. This has the advantage of speed and the fact that it leaves a cold mortar ready for use.

(The lecture was illustrated by formulæ and tables.)

Discussion

DR. J. TAIT said Mr. Berry's lecture showed that the chemist had to be a bacteriologist and many other things as well.

MR. G. MILNE said they had found by experiment in the Royal Technical College that when they washed the hands the count of bacteria increased, perhaps due to the outflow from the sweat-glands. He suggested that in connexion with the British Pharmacopoeia instructions for the addition of antiseptics there might be published a list of equivalents.

MR. BERRY agreed.

In reply to MR. SINCLAIR, Mr. Berry said a recent paper published in America stated that a weak solution of mercuric chloride could not be relied on in the presence of blood. As a disinfectant it was not in the same class as iodine.

MR. MERRY raised the question of industrial methylated spirit as a disinfectant, Mr. Berry saying that it needed time to prove effective. It did not show itself effective in a matter of seconds.

PROFESSOR TODD expressed appreciation of Mr. Berry's valuable paper.

MR. E. J. SCHORN (Royal Technical College, Glasgow) said that work had been done with regard to accurate measurements in connexion with new disinfectants.

MR. GEORGE MILNE referred to moulds being discovered in bottles with acriflavine.

MR. BERRY said that such a growth could be found even with sulphuric acid. He was not prepared to say that acriflavine would kill every mould.

A vote of thanks was proposed by MR. J. H. RAMSAY, Ph.C.

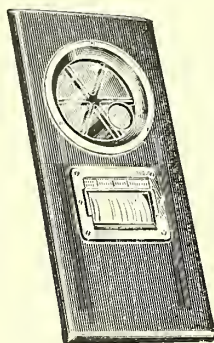
Trade Notes

DIGESTIVE TEA.—Chota Hazri Tea Co., Ltd., 33 Moorfields, Liverpool 2, offer to send to any chemist a quarter-pound packet of Ark's digestive Ceylon tea for personal trial. This brand of tea is reserved especially for sale by chemists, who are invited to co-operate in a scheme for furthering sales, details of which may be obtained on application.

CHRISTMAS SHOWROOMS.—A cordial invitation is extended to pharmacists by James Woolley, Sons & Co., Ltd., Victoria Bridge, Manchester 3, to visit their showrooms and inspect a large range of perfumes, coffrets, manicure sets, sprays, and cameras, which are included in a range of attractive Christmas gift articles.

DR. BRANDRETH PILLS.—The Allcock Manufacturing Co., Hamilton Square, Birkenhead, announce that the national advertising for Dr. Brandreth pills commenced on November 12. Supplies may be obtained from the usual wholesalers or direct. Dr. Brandreth pills are advertised as the vegetable laxative well known for many years, and are packed in boxes of 36. In addition to this product, Messrs. Allcock are the makers of Nailoid, issued as a remedy for brittle nails and backed by national advertising, and Allcock porous plasters, the counter display carton of which has been re-designed.

AN INGENIOUS CASH TILL.—J. C. King, Ltd., 42-60 Goswell Road, London, E.C.1, have introduced an interesting type of cash till which they describe as King's coin exhibitor. The value of the till is seen in its easy method of automatically disposing of any disputes between seller and customer. It is simple in operation, the closing of the drawer automatically bringing the revolving disc into action. One of the sections covers the coin chute, which in turn passes the coin into the drawer. In full view of the customer are the four coins of the previous sales, with the amount charged, which is also recorded on the roll. This till has been tested and proved satisfactory by all classes of tradesmen and is offered at an attractive rate.



Wholesale agents are desired for these tills.

SULPHANILAMIDE SPRAY.—We have received from the Crookes Laboratories, Gorst Road, Park Royal, London, N.W.10, a specimen of their new preparation, which is intended for use as a spray or mouth wash. It is non-poisonous and can be swallowed. This product has been suggested for local treatment where the streptococcal infection is on a mucous surface, such as streptococcal throats, infected tonsils, scarlet fever, etc. Crookes' spray compound has been tested by medical men and in certain London hospitals for over six months, and very favourable results have been received. It has also been suggested that apart from its curative treatment, the use of this solution as a spray would be of great prophylactic value for nurses and those engaged in dressing operation wounds. Further details may be had on application.

A CHRISTMAS APOLOGY.—Bourjois, Ltd., Queen's Way, Croydon, have experienced so considerable a demand for their coffrets and other special Christmas lines that they find it necessary to apologise to those of their customers who have not been able to obtain supplies of the articles ordered. They state, however, that they still have limited stocks of certain coffrets and, further, that the perfumes and other standard lines which are suitable for Christmas gifts are always available.

BONUS OFFER.—We are asked to state that the bonus offer made by Proprietary Agencies, Ltd., 179/181 Acton Vale, London, W.3, in connexion with the introduction of Phillips' magnesia beauty creams closes on November 20.—Elsewhere in this issue a suggestion is made as to how a chemist can sell two products when one is requested. This scheme refers to milk of magnesia in liquid form and milk of magnesia tablets which are so convenient for carrying in the pocket or purse.

Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary and Year-Book," 1937, p. 338.

(From "The Trade Marks Journal," October 20, 1937.)

- "SOLPROTEX"; for chemicals for use in perfumes, etc. (1). "EXALTO-LIDE"; "EXALSTONE"; for photographic chemicals, etc. (1). By Firmenich & Cie, 1 Chemin des Melèzes, Jonctions, Geneva, Switzerland. 578,591/592/593. (Associated.)
- "RADOS"; for all goods (1) excluding chemicals for prevention of freezing in motor-car radiators. By A. Edwards, Ltd., Coventry Road, Warwick. 579,219.
- "MONAZONE"; for sanitary chemicals (2). By Société des Antiferments, 8 Rue des Gravières, Neuilly-sur-Seine, France. 577,306.
- Line design and word "ALPA"; for agricultural chemicals, etc. (2), for medicinal chemicals, etc. (3), for perfumery, etc., excluding soap (48). By J. Vesely, 26-30 Ugartova Brno-Kralovo, Pole, Czechoslovakia. 578,513/514, 577,770. (Associated.)
- "MORN-DEW"; for medicinal chemicals, excluding soap (3). By W. Beggs & Co., Ltd., 7 Bain's Place, Belfast. 578,031. (Associated.)
- "SALVOLIA"; for medicinal petroleum jelly (3). By The Scottish Co-operative Wholesale Society, Ltd., 95 Morrison Street, Glasgow. 578,902.
- "AROZ"; for ointments (3). By E. J. Ripley, 38 Cranley Road, Westcliff-on-Sea. 579,615.
- "PRESTINE"; for medicated preparations (3). By Medical Preparations, Ltd., 4 Copthall Avenue, London, E.C.2. 579,699.
- "RESPALON"; for all goods (3). By Medical Specifics, Ltd., 28 Lincoln's Inn Fields, London, W.C.2. 579,753.
- "ECHHAKIN"; for medicinal chemicals (3). By Veritas Drug Co., Ltd., 94 Clerkenwell Road, London, E.C.1. 579,790.
- "MATHAPLAST"; for medicated plasters and adhesive tape (3). By W. Mather, Ltd., Dyer Street, Hulme, Manchester. 579,851. (Associated.)
- "ALLERGOSIL"; for medicated injections (3). By Endocrines-Spicer, Ltd., 54 Conduit Street, London, W.1. 580,001.
- "LATICEL"; for surgical instruments of india-rubber (11). By Hungarian Rubber Goods Factory, Ltd., Kerepesi-ut 17, Budapest X, Hungary. 578,060. (Associated.)
- "SINFRA"; for surgical instruments (11). By Watson & Sons (Electro-Medical), Ltd., 43-47 Parker Street, London, W.C.2. 579,278.
- "COUNTRY CLUB"; for perfumes (48). By Parfumerie Houbigant, S.A., 19 Rue de Faubourg St. Honore, Paris. 578,153.

(From "The Trade Marks Journal," October 27, 1937.)

- "HOMOROMO"; for chemical deodorisers (2). By Delapena & Son, Ltd., 67 Jermyn Street, London, S.W.1. 578,892.

Business Changes

BOOTS, LTD., are opening a branch at 69 High Street, Berwick-on-Tweed.

MR. W. J. STEPHENSON NIXON, Ph.C., has taken over the pharmacy of W. J. Henning, Ltd., 136 Main Street, Larnie.

MR. W. CHARLES VEITCH, chemist and druggist, has purchased the business of Mr. Andrew Johnston, chemist and druggist (trading as C. Chislett), 10 Bloomgate, Lanark.

MR. JAMES T. HOUSTON, chemist and druggist, 32 Dalrymple Street, Girvan, Ayrshire (the sole surviving partner), will carry on the business of Gilbert Graham under the same name.

THE SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY, LTD., have acquired the business of Mr. William Jameson, chemist and druggist, The Ore Pharmacy, Cardenden, Fife.

MR. J. ROSS MANSON, chemist and druggist, is opening a pharmacy at New Parade, Hare Lane, Claygate, Surrey.

MATTHEWS & WILSON, LTD. (manufacturing chemists), 6-8 Cole Street, London, S.E.1, have appointed Messrs. David W. Copley and G. F. Caley to the board of directors.

MR. J. G. WYNNE-WILLIAMS (formerly general manager, Pepsodent, Ltd.), has been appointed to the board of the company as managing director.

Births

Notices for insertion in this column must be properly authenticated.

WELLS.—At Corbridge Maternity Home, on November 10, Lily, wife of Sidney A. Wells, M.P.S., Hexham, of a son.

Marriages

CROSSLEY—LITTLEWOOD.—At St. Margaret's Church, Werneth, Oldham, recently, Henry Lord Crossley, M.P.S., to Clare Littlewood.

HOLROYD—SIDDALL.—At St. George's Church, Sowerby Bridge, on October 25, Mr. Benjamin Thomas Holroyd, Ph.C., Bridlington, to Edith Siddall.

Deaths

BROMLY.—At 16 Hurst Avenue, West Worthing, on November 7, Mr. C. W. Bromly. Until his retirement in 1934 Mr. Bromly was the London and suburban representative of Bovril, Ltd., 152 Old Street, E.C.1.

EWELL.—At Dover, on November 14, Mr. Richard Michael Ewell, M.P.S., aged 88. Mr. Ewell went to Dover in 1876 as assistant to the late Mr. Alexander Bottle, Ph.C., whom he succeeded in 1898. For many years he was secretary to the old Dover Chemists' Association, and he was one of the first members of the Kent Pharmaceutical Committee. A friend of William Martindale, E. N. Butt and their contemporaries, there must be many who remember him as a genial employer and a good chemist.

GARRATT.—At Melverley, St. George's Hill, Weybridge, on November 12, Mr. John Edwin Garratt, founder and chairman of The Ryvita Co., Ltd., 96-98 Southwark Street, London, S.E.1, aged seventy-three. Before establishing the Ryvita Co. Mr. Garratt was associated with well-known proprietary articles, including Frog in Your Throat, Newskin and the Veedee Vibrator.

HENDERSON.—At Banchory, on November 14, Mr. Andrew Henderson, M.P.S. Mr. Henderson was trained in Edinburgh and went north about forty years ago. He is survived by a widow, two sons and two daughters.

HEYWOOD.—At his home at Westcliff-on-Sea, on November 11, Mr. John Henry Heywood, J.P., Ph.C., aged eight-one. Before removing to Southend, where he was in business for forty years, Mr. Heywood had a business at Atherton, Lancs. He retired last February, and was succeeded by his son, Mr. J. R. Heywood, Ph.C.

MORGAN.—At The Gables, Homefield Road, Upper Warlingham, Surrey, on November 1, Mr. Ernest Harper Morgan, M.P.S., aged sixty-one. Mr. Morgan was the son of the late Mr. G. H. Morgan, who founded the firm of G. H. Morgan & Sons, Wem and Whitchurch (Salop). He succeeded his father at the Wem branch of the business.

RIDLEY.—At his residence, Chantry Grove, Sproughton, Suffolk, on November 11, Mr. Henry Ridley, M.P.S., chairman of Grimwade, Ridley & Co. (Ipswich), Ltd., wholesale chemists, Princes Street, Ipswich, aged seventy-seven. Mr. Ridley had been associated with his firm since boyhood, and at the time of his death was also chairman of Cranfield Brothers, Ltd., millers, Ipswich. He had been president of the Suffolk Kennel Association for many years, and was at one time president of the Eastern Counties Otter Hounds.

TAYLOR.—On November 15, suddenly, Provost William Stewart Taylor, M.P.S., 15 Market Place, Inverurie, aged sixty-four. A few days ago Mr. Taylor was unanimously elected Provost of Inverurie for the sixteenth year, after being returned to the Town Council at the head of the poll. He entered the Town Council in 1910, and among other posts was treasurer and bailie before being elected Provost. He represented the burgh on the County Council. Mr. Taylor is survived by four daughters.

Personalities

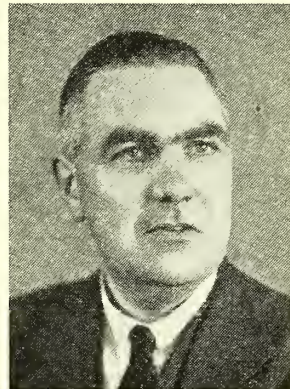
LORD RIVERDALE, of Sheffield, has been appointed chairman of the Advisory Council to the Committee of the Privy Council for Scientific and Industrial Research in succession to the late Lord Rutherford. Sir William Bragg will join the Advisory Council.

MR. GEORGE CHILES, a member of the London Chemists' Golfing Society and senior representative of Thomas Morson & Son, Ltd., playing in partnership with a fellow member of Pinner Hill Club on October 10, holed the seventh at Thorpe-ness in one stroke. Thirteen days later they were playing against each other on their home course. At the eleventh hole Mr. Chiles once again holed out in one.

MR. F. BASCOMBE, F.I.C., Ph.C., Tulse Hill, London, S.W.2, has received from the Queen Alexandra Rose Fund a silver badge to commemorate his twenty-five years' service as organiser of the Norwood collections. He also acts for the Poppy Day and other flag-day collections. In all some £63,000 have passed through his hands since he took this task over. Mr. Bascombe, who worked all day on November 11 last, supervising the issue of poppies and the counting of the cash received by the sellers, is eighty-seven years of age.

MR. J. ALLEN JONES, M.P.S., Moor Lane, Crosby, president of the Waterloo, Seaforth and Crosby Pharmacists' Association, has been elected an alderman of the new borough of Crosby. At the first elections of the borough, held recently, he headed the poll of the four candidates for the East ward. Mr. Allen Jones, who served continuously on the Great Crosby Council from 1932 until it was merged in the new borough, was chairman in 1936-37.

THE Nobel prize for medicine for this year has been awarded to Professor von Szent-Györgyi, of the University of Szeged, Hungary, for his work on vitamin C, including the isolation of ascorbic acid; the Nobel prize for physics is shared by Professor G. P. Thomson (son of Sir Joseph Thomson, O.M.), Imperial College of Science, London, and an American; that for chemistry is divided between Professor W. N. Haworth, Birmingham University, and Professor Karrer, Zurich.



MR. J. ALLEN JONES

Coming Events

Tuesday, November 23

Association of Pharmaceutical Employees, Co-operative Hall, 121 Seven Sisters Road, London, N.7, at 8.30 p.m. Address by Mr. J. L. Smythe on "State Insurance."

Guild of Public Pharmacists (Manchester Branch) and Manchester Pharmaceutical Association, Plaza Ballroom, Oxford Street, at 8 p.m. Benevolent Fund whist drive and dance (date altered from November 24).

Thames Valley District Pharmacists' Association, Three Fishes Hotel, Kingston, at 8.45 p.m. Address by Mr. J. Hearle on "The Progress of Pharmacy."

Wednesday, November 24

Pharmaceutical Society and National Pharmaceutical Union, Oxford and District Branches, Town Hall, Oxford, at 8 p.m. Address by Mr. H. H. Marshall on "The Work of the N.P.U., Past and Present."

Pharmaceutical Society, West London Branch, Stewart's Restaurant, 50 Old Bond Street, London, W.1, at 8.30 p.m. Address by Mr. W. S. Howells on "Some Reflections upon our Present Position."

Thursday, November 25

Guild of Public Pharmacists, Palace Hotel, Bloomsbury Street, London, W.C.1, at 7.50 p.m. Annual dinner and dance.

Guild of Public Pharmacists, Liverpool Branch, Royal Institution, Colquitt Street, at 8 p.m. Lantern lecture by Mrs. R. C. Bisbee, M.Sc., F.L.S., on "Ductless Glands."

South-West London Chemists' Association, Fountain Hotel, Garratt Lane, Tooting, at 8.45 p.m. Benevolent Fund smoking concert.



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E/18. Novobromel.

B/17. Resicol.

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THE CHEMIST AND DRUGGIST

VOL. CXXVII

November 20, 1937

NO. 3015

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Chemists' Confectionery

DURING the past decade marked changes have occurred in the confectionery side of a chemist's business; in fact it has developed to such an extent as to become a department as distinct as the photographic with, however, the advantage of being less seasonal. It is principally in this last respect that change has been most evident. Not so many years ago the lozenge and pastille trade, comparatively limited as regards variety of products, was confined to the autumn and winter months, and when the springtime demand for sulphur or sulphur and sarsaparilla lozenges ceased, there remained only the occasional customer for such lines as acid drops and extra-strong peppermints. The advent of medicinal glucose and the changed opinions in regard to its value to health, together with the presentation of vitamins in "sweetmeat" form, have perhaps been responsible for the increased demand for chemists' confectionery. On the manufacturing side, the number of makers of these medicinal products has also greatly increased, and realising the value of the pharmaceutical outlet, several now confine the sale of their products exclusively to chemists. This affords chemists opportunities of increasing a business which is theirs by right, and it is with the object of focusing attention on the matter that so many pages of this issue are devoted to pharmaceutical confectionery. Few chemists to-day compound lozenges and pastilles at the dispensing counter, chiefly because doctors have become accustomed to prescribing proprietary brands, but there is no reason why a pharmacist should not exercise this branch of his calling, particularly where he enjoys the confidence of the medical practitioner, also under Section 19 of the Pharmacy and Poisons Act, 1933, which confirms his ancient right to counter-prescribe. The *modus operandi* is given in the article on "Dispensed Lozenges and Pastilles," and it may be studied in conjunction with that on "Sweets as a Vehicle for Medicine." Reference has been made above to the important part played by glucose, and those who are interested in the "come-back" of this particular sugar through its health-

giving properties will find much useful information in the article entitled "Glucose Therapy." Colourings, flavourings and essences are dealt with under their respective headings, while window displays and reviews of goods relate to the more strictly business side of chemists' confectionery. THE CHEMIST AND DRUGGIST has always paid great attention to the historical side of the profession and "Lozenges Through the Ages" is a noteworthy contribution which will lighten considerably the task of future historians.

Trade Still Increasing

THE official returns of our seaboard trade for October and the first ten months of this year register a further increase for both periods in the values of all mercantile traffic. This year the amount of increase each month in the value of our imports has been nearly double that of our exports. By the end of the year our debit trade balance will have reached £400,000,000. This is the one disturbing feature of our international commerce. The adverse trade balance for the full year 1936 was £347,800,750, and in 1935 it was only £275,749,456.

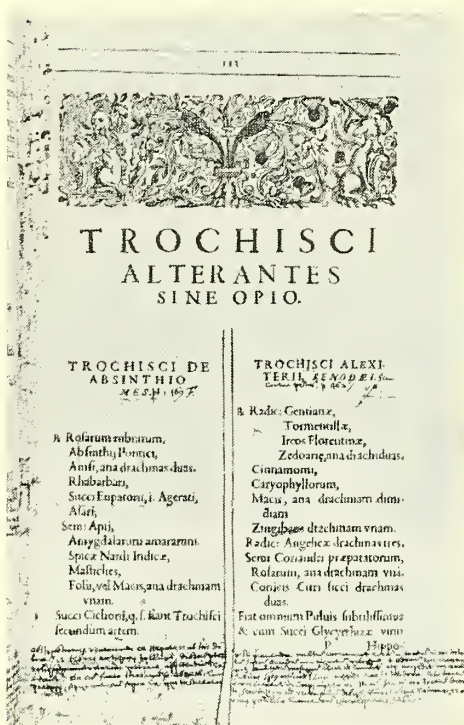
All Classes of Merchandise	Imports	Exports of U.K. Goods	Total Exports including Re-exports
	£	£	£
Oct., 1937	96,085,427	47,216,048	52,914,579
Oct., 1936	80,531,920	41,764,413	46,324,593
Oct., 1935	73,374,837	39,864,711	44,597,127
Jan.-Oct., 1937	837,940,598	432,858,531	497,880,279
Jan.-Oct., 1936	688,108,963	361,786,012	412,055,685
Jan.-Oct., 1935	612,395,938	351,643,053	396,898,480

The October returns for the "Chemicals, etc.," group are satisfactory, and the ten months' figures show that the strong credit trade balance is well maintained. The value of imports for the ten months reached the highest figure for nine years. Our shipments outwards, however, show an even greater rate of increase, being £3,400,000 more than in the ten months of 1936, giving us a credit balance of approximately £10,000,000, compared with about £7,300,000 during the same months of 1936. It is of interest to note that so far this year the aggregate of all inward and outward traffic in "Chemicals, etc.," has increased by about £4,400,000 on the 1936 total, and the bulk of this increase is represented by exports.

Chemicals, Drugs, Dyes and Colours	October			January-October		
	1937	1936	1935	1937	1936	1935
Imports	£'000 1,294	£'000 1,216	£'000 1,324	£'000 11,298	£'000 10,381	£'000 9,557
Exports of U.K. manufacture ...	2,095	1,910	2,070	20,741	17,334	17,589
Re-exports	46	35	32.2	388.6	341.3	320.3

The value of imports liable to key industry duty during January-September, 1937, was £711,949 (£712,387 in 1936 and £654,960 in 1935). Dutiable optical glass, microscopes, optical instruments landed during the nine months this year were valued at £533,231 (£417,961 in 1936 and £326,551 in 1935). Imports of laboratory porcelain during January-October this year were valued at £94,690 (£95,534 in 1936 and £98,656 in 1935).

Formulas and Containers for Lozenges



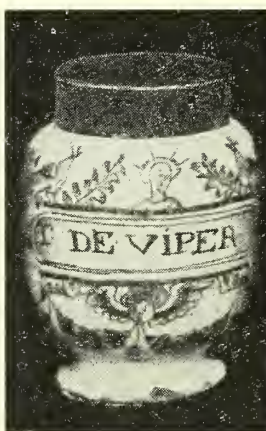
First page of lozenge section in *Pharmacopoeia Londinensis*, 1618. (MS. notes are by Mayerne)



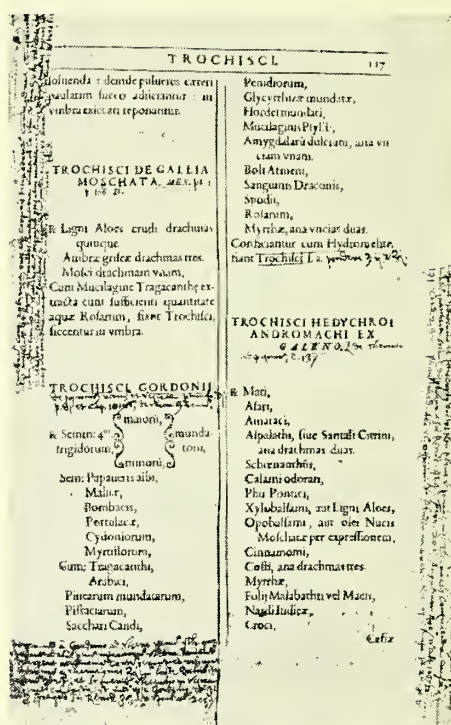
T. de Carab, 1674.—Trochisci de Carabe, P.L., 1618, contain amber, mastic, red coral, opium, saffron, etc. (After Mesue)



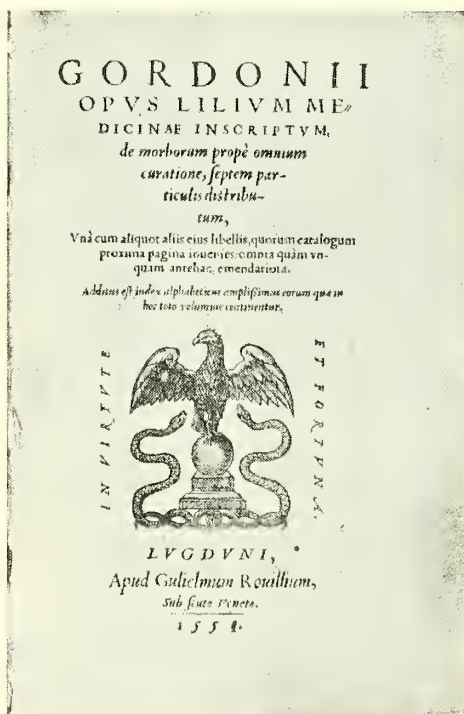
T. Aliandal, 1675.—The chief ingredient is colocynth pulp. (After Mesue)



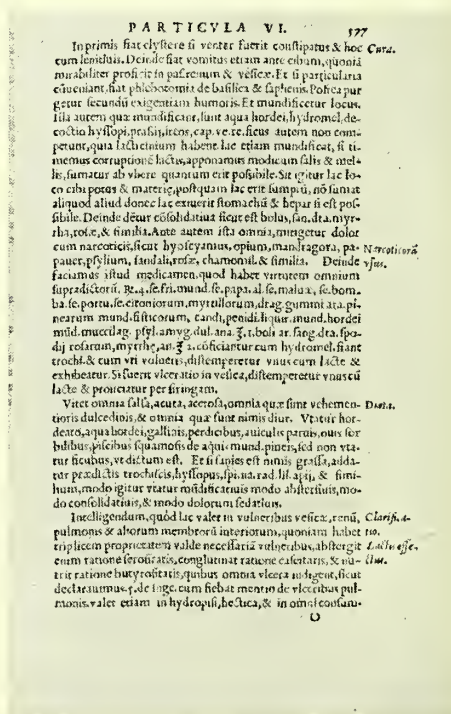
T. de Vipera (early 18th century).—Trochisci de Vipera Andromachi contain viper's flesh. (After Galen)



Page from P.L., 1618, giving formula of Gordonio's lozenges. (MS. notes are by Mayerne)



Title-page of Gordonio's "Lilium Medicinæ" (an early edition)



Page from Gordonio's "Lilium Medicinæ" giving formula of lozenges

Lozenges through the Centuries

By William Kirkby, M.Sc., Pharmaceutical Chemist

THE history of medicine has several aspects, each of which requires an expert to trace its development in order that their several influences may be appreciated in regard to a proper unfolding of the history of physic in general. The anatomist, the physiologist, the pathologist, the surgeon and many others have to make their special contributions. The same thing is true of pharmacy, which itself is an important branch of medicine. The chemist, the expert in materia medica, the pharmacist and others also have to assemble historical data in order adequately to present an account of the development of medicines, the improvements in manipulative procedure, and the sources, characters and qualities of drugs, etc. The forms of pharmaceutical preparations, especially those we call galenical, comprise a class that has not received very much attention. Of some of these there is perhaps not much to be said about their origin. We can take it for granted that infusions and decoctions simply originated by all and sundry taking their physic by the obvious method of treating the medicine with water, either cold, hot or boiling, and drinking the liquor. As time went on those who were responsible for treating the sick, either casually or, shall one say, professionally, devised means for preserving the medicines and, no doubt, for making them more efficient by combining the drugs with others. In several ways this was accomplished and compound medicines would gradually become known. Among many preparations invented were two kinds that for several quite evident reasons have maintained a prominent place in practical pharmaceutics, namely, confections and lozenges.

Pastilles and Tablets

At the present day lozenges, pastilles and tablets for medical purposes are made in an almost bewildering profusion. By many people they may be regarded as a novel means of administering physic. If, however, we distinguish between them and capsules they are really an ancient form of medicine, whereas it is the capsules that are comparatively novel. Lozenges and tablets were employed in Rome about 2,000 years ago, as we are told by Celsus in his "De Re Medicina." In the fifth book of his work he gives a description of them and says that the "pastille," as it was named in Latin, was called "τροχίσκος" by the Greeks, and afterwards designated "trochiscus" in Latin, meaning a little round ball, or disk, or tablet of medicine. This name became common in medical books of the fifth century, and it has been retained in all European works on medicine until the present day as the Latin name for a medicinal lozenge, while "pastille" has become the name for an article with a base of a softer consistency than the lozenge. But from very early times "pastillus" was also applied to a small cone-shaped mass compounded of fragrant gums which was burned in the sick chamber to counteract malodorous air. This article is not yet quite obsolete, although it is less frequently used since the advent of the perfume spray.

Lozenges

The English word "lozenge" is derived from the old French "losenge," and in medical lore is applied to compressed dried medicines when cut into diamond-shaped tablets. The O.E.D. gives references to its use in this sense in the sixteenth and seventeenth centuries. An early use of the name occurs in Wm. Boghurst's account of the Great Plague—"Loimographia"—written in 1666, in which he writes of medicinal preservatives and mentions lozenges to be held in the mouth.

The trochiscus, as we have seen, was so named from its form, but other names were also applied to the article, and we find "rotula," "morsellus" and "tabella" in use in sundry works throughout the history of medicine. They were composed of dried drugs, triturated together, sometimes flavoured with aromatic substances, made into a paste with syrup or some glutinous material, cut into square or round or triangular shapes and dried. By no means were all the different kinds intended to be administered by the mouth; for

some were dissolved for external applications and some were made for the preservation of drugs to become constituents of other preparations like the Troch. de Vipera that was an ingredient with other trochisks in the Theriaca Andromachi of the first London Pharmacopœia. The formulas given by Celsus for five of the six pastilli mentioned by him are intended for external application to ulcers, tumours and anal fissures. It became a much used form of medicament, and by the time of Galen it was of considerable importance and many varieties were devised for internal use.

With Galen himself it was a favourite form of medicine. It has continued to retain its hold on the faculty even to the present time. Some of those formulas for which he was responsible have survived until as late as the London Pharmacopœias of the seventeenth century, and have been included in every treatise on physic during the intervening centuries. The popularity of the trochisk is evident from the list of about forty given in the works of Paulus Ægineta (seventh century), among which are several of Galen's. A large proportion of those enumerated by Paulus are to be dissolved for rectal and vaginal injections and for other lotions, as well as for applications in a dried state to ulcers and carbuncles; but others are for oral administration like the saffron trochisk and those of which the chief drug was mastic, or henbane or coral, or rhubarb, or snails, or anise, or pomegranate, or myrrh and aloes—in every case with several or many other ingredients and very frequently with opium. As a specimen of one intended for making an astringent application mention may be made of the Trochiscus Andronii, which appears in the first London Pharmacopœia as Pastillus Andronis, derived from Galen. It represents a type of trochisk which began to disappear in the seventeenth century, at least so far as this country is concerned, although its name appears on one of the English drug jars in Mr. Geoffrey Howard's collection.

To give some idea of the influence of the Arabian physicians upon European medicine it is only necessary to call attention to the influence their authors such as Avicenna and the so-called Mesuë Junior had on the practice of medicine here down to the beginning of the seventeenth century. Our first Pharmacopœia (1618) is evidence of this in the matter of these trochisks. In that work, out of thirty-nine formulas for them twenty-two are attributed to Mesuë and three to Rhazes; eleven are from Galen. These include lozenges of historical importance in respect of the general subject of lozenge and cachou making; of these there are the white cough lozenges (Troch. Bechici Albi¹), containing three different kinds of sugar and powdered liquorice; the black cough lozenges (Troch. Bechici Nigri), containing liquorice juice; the Troch. de Gallia Moschata, made of aloes wood, musk and ambergris; there is another aromatic one named Troch. de Ligno Aloes as well as one called Troch. de Rosis, containing red roses and other fragrant ingredients. The first London Pharmacopœia is a repository of the history of medicine displayed in the names of its preparations and the authorities to whom they are ascribed; a striking example of this is the Trochiscus Gordonii. The name has a decided British appearance, and seems to have little if any association with the ancient physicians of Arabia and their antecedents. Bernardus de Gordonio (not Gordonus) was, however, a French physician who was one of the earliest professors in the School of Montpellier about the end of the thirteenth century. He acquired a great reputation as an authority on urinary diseases, and wrote several works on medicine, of which his "Lilium Medicinæ" is the most famous, largely because it contains the recipe of his lozenges which he employed for the ulcerated bladder and kidneys, when they were administered with milk; they were also used as vaginal and urethral injections. They continued in the Pharmacopœia Londinensis until the issue of 1721, but the number of ingredients had by that date been somewhat reduced. By the end of the century the number of lozenges in the London Pharmacopœia had declined considerably.

But if we turn to, say, Quincy's Dispensatory (1719) we find that in addition to those then official there were a number

¹ Later known as Troch. Amyli.

of extra-official ones. The extensive use of them on the Continent during that century is shown by the great number of formulas recorded by N. Lernery in his "Pharmacopée Universelle," in which he gives over 150 for *tabellæ* and *trochisci*; and David de Spina in the "Lexicon Pharmaceutico-Chemicum" (1715) has nearly 120 *trochisci*. Both these authorities give recipes definitely intended for gradual solution in the mouth, and the *Troch. Sublinguale* in de Spina is particularly interesting because it contains lemon and orange peels and sugar impregnated with the essence of fresh lemon peel together with musk and ambergris made into a mass with tragacanth mucilage to form "small sublingual trochisks" which are, says the author, an agreeable and most delicious medicament. Cough lozenges are a feature of both the above compilations. In Lernery there is a precursor of modern tablets in the *Tabellæ contra Vermes*, of which the "*semen contra*" (*) was the active ingredient.

"Pharmacopœia Galenica"

A noteworthy compendium of galenical pharmacy is the "Pharmacopœia Galenica" (1719), which treats of English medicines of the seventeenth century. The *Trochisci* are of various kinds approaching closely in composition and intention to those of our own day. There are lozenges for coughs, asthma, heartburn, etc.; some of these deserve special mention. The *Troch. Prunellæ* is a forerunner of some of our tablets—its active ingredient is the lapis prunella; it was to be held in the mouth in cases of fever. As an instance of the care the old apothecaries took in compounding their preparations there is the *Troch. Orectici* (3) intended for heartburn (*ad stomachi ardorem*), in which the chalk and crabs' eye were each to be levigated with orange-flower water (*aqua naphæ*) and dried on prepared paper before mixing with the pearls and red coral and other ingredients. The coltsfoot lozenges and the *Troch. Cathartici*—these latter containing scammony and cream of tartar—are quite modern.

Two others are of more than ordinary interest, namely, *Troch. Cashesu sive Catechu* containing *terra Japonica* with sugar, alum, ambergris and made into minute oblong pills like mouse dung (*instar Muscerdæ*); and the *Troch. Infantum* containing jalap and the *mercurius dulcis*—our *hydrargyri subchloridum*. The first of these was the source whence sprang the *cachou* (4) which appears in Quincy's Dispensatory (1719) under the name "*catechu*," of which the formula is similar to the one mentioned but the mass is directed to be made "into little pills of the bigness of Pearl-Barley"—which has a rather more elegant sound. The second, namely, the *Troch. Infantum*—is, probably, the recipe that inspired John Ching to make his celebrated worm lozenges. It is curious that he should have succeeded in getting a patent for them in 1796, especially as Edward Story had obtained one for practically the same compound in 1759 (5). The composition of Story's and Ching's lozenges is mentioned by Paris in his "Pharmacologia"; the calomel is obscured in the formula by one of its old names—the white panacea of mercury. There was a further steady decline in the use of lozenges by practitioners in this country if we may judge by the London Pharmacopœia of 1788, in which only six kinds are included—those of starch, chalk, liquorice, magnesia, nitre and sulphur. They disappeared altogether thereafter from that publication; but in the first issue of the British Pharmacopœia (1864) they again found a place, probably because they had continued to exist in the Edinburgh Pharmacopœia.

To understand something of the character of the business of the pharmacist years ago one cannot do better than find out what were the recipes upon which he depended other than those of the dispensatories. The formulas of the lozenges he purveyed then are a good guide as to the miscellaneous nature of his stock, and those given in Samuel Frederick Gray's Supplement to the Pharmacopœia (1821) are illuminating. Space is too limited to do more than make an observation or two on items in the following list:—Marsh-mallow lozenges, *pâte de guimauve* (three recipes), starch lozenges (the white cough lozenges of earlier authorities), *morisuli aromatici*, almond paste (a kind of march-pane), yellow pectoral lozenges, lozenges for heartburn (three recipes), clove lozenges, seven kinds of *cachou*, cinnamon lozenges, saffron lozenges, refined liquorice juice (one

recipe makes it from Spanish liquorice and carpenter's glue, one pound of each, with water a sufficiency). Four kinds of black pectoral lozenges, several other liquorice preparations, *ipeacacuanha* lozenges, orrice lozenges, gum lozenges, lemon drops of two kinds, steel lozenges, peppermint, nitre, rose, rhubarb, sulphur, tolu, vanilla, ginger and several other lozenges; ginger candy, coltsfoot with anise lozenges are particularly interesting. At this moment it is worth noting that barley sugar was then in demand; there are two recipes for it—the *Saccharum Hordeatum*—in this recipe it is remarked that formerly a decoction of barley was used; the second recipe is for *Penides* (6) *Alphenic* (7)—the sugar is boiled with decoction of barley to "full candy height" and flavoured with lemon and bergamot and twisted to render it white. Gray includes in this section of "Hard Confections," as he calls them, two methods for making chocolate paste with flavouring to suit the English palate.

It is evident that the medical fraternity were not employing lozenges to any great extent in this country a century ago, but the chemist was meeting a popular demand for them. On the Continent it was a form of medicine which had not altogether become obsolete, as appears from the rather formidable list of between fifty and sixty kinds to be found in Jourdan's "Pharmacopœia Universalis" (1833). The latter half of the nineteenth century saw a remarkable increase in this class of medicaments due to the production of glycol-gelatin, the invention of compressed tablets (8) and a number of improvements in apparatus and machinery for manufacturing these goods. The increase in the popularity of them was accelerated by the ingenuity of makers in exploiting novel combinations as proprietary goods in attractive packages.

Some Famous Proprietaries

Story's and Ching's worm lozenges have already been mentioned as proprietary articles of the eighteenth century. Ching's were cleverly advertised by means of the copper tokens so commonly used by London tradesmen during the period of scanty copper coinage at the close of the eighteenth century. James Atkins, in "The Tradesmen's Tokens of the Eighteenth Century," mentions seventeen varieties of tokens issued by Basil Burchell, proprietor of "sugar-plumbs for worms," and two of Ching's tokens. There were other proprietary lozenges at that time:—Greenough's balsam and stomachick lozenges (patented in 1757) and Howe's pectoral lozenges (patented in 1788). (9) In "The Gentleman's Magazine" for August 1748 there is a compilation—"Pharmacopœia Empirica" (10)—in which is mentioned Dr. Anderson's Cough Lozenges. In this relation it must be observed that Rennie, in his "Supplement to the Pharmacopœias," includes some "Absorbent" lozenges which he says are "sold in Bond Street."

The English names of the ingredients of Gordonio's lozenges in the P.L. 1618 (given in Latin on p. 594) are of interest. They are:—The four larger cold seeds (seeds of pumpkin, cucumber, water-melon and melon), the four smaller cold seeds (seeds of endive, chicory, lettuce and purslane), all cleaned or blanched, seeds of the white poppy, mallow, cotton, purslane, quince, myrtle berries (the berries of the bilberry), gum tragacanth, acacia, pine nuts, cleaned, pistachio nuts, sugar candy, penidia (barley sugar), liquorice, cleaned, barley, cleaned, mucilage of psyllium (seeds), sweet almonds—one ounce of each of the above articles (the two kinds of cold seeds represent one ingredient). Armenian bole, dragon's blood, spodium (this may have been, in this case, either the ash from calcined calamine (= impure zinc oxide), or the spodium obtained from burnt ivory (= ivory black)—this latter is what was used in the eighteenth century), (red) roses, myrrh—two ounces of each of these five ingredients, the whole compounded with hydromel, a species of mead made with honey and water. To obtain a fair estimate of the importance of the different kinds of medicaments of this class at the present time it is necessary to turn to the two volumes of "Pharmaceutical Formulas" and look at the indexes under *Trochisci*, *Tabellæ*, *Pastilles* and *Lozenges*.

The jars shown in our illustrations on p. 594 are reproduced by courtesy of Mr. Geoffrey Howard. The pages from books were photographed at the British Museum.

* *Santonica*—which has been employed as a vermifuge from the fifteenth century.

3 *Orexis*=appetite.

4 *Cachou* is the French name for catechu—the *terra Japonica*.

5 See Alpe's "Handy-Book of Medicine Stamp Duty," pp. 130, 132.

6 *Penidius*—an old name for a kind of clarified sugar.

7 An Arabic word for hordeated or barley sugar (*Blancard*).

8 Invented by William Brockenden in 1843.

9 Alpe's "Handy-Book of Medicine Stamp Duty."

10 Reprinted in Alpe's Handy-Book.

Chemists' Confectionery Reviewed

EXCEPT within extremely narrow limits, the pharmacist in business has not the opportunity to prepare or manufacture his own medicated confectionery, pastilles or lozenges. Yet in many instances his customers will regard the goods he supplies in this category as his own preparations, and will register praise or blame according to the merits of what they buy. In other words, they may buy upon his expressed recommendation or not, but always upon his implied recommendation. Therefore it is incumbent to select stocks with care, and while it is undoubtedly true that many items of what may legitimately be regarded as chemists' confectionery have been marketed for years by manufacturers whose names have become by-words for dependable quality, yet it is also true that the field has been widened by the inclusion of many new products and new manufacturers. A review of medicated sweets must therefore be most opportune. It affords an opportunity of seeing as a whole a field some corners of which are in danger of being overlooked or neglected. The suggestion is an excellent one that the class of goods under consideration should not only be given a special window display either periodically or permanently, if space permits, but that they should be grouped into a new department as distinct as the average toilet department. In considering what to include in such a department there may be differences of opinion. Some are inclined to class as confectionery only the comparatively recently introduced boiled (glucose) sweets. The

principle followed in these pages has been to include everything which may be freely taken as a sweet, whether pastille, lozenge, toffee or other form, and whether new or of long acceptance and to exclude what presents a definite dose or must be taken in restricted quantity. Thus digestive sweets, cough sweets, antiseptic pastilles and many others have been included and chocolate laxatives have not.

The medicated lozenge and pastille trade is an old craft, and manufacturers are for the most part limited in number to a few well-established firms. Although expensive machinery is required in many of the processes, the quality and finish of the lozenges and pastilles depends largely on the skill of the workers, who are experienced craftsmen and women. In many cases the craft passes down from one generation to another. The picked gum arabic base of pastilles is invariably dissolved and filtered, before going through the process of evaporation. The lozenge base—an exceptionally fine ground sugar, preferably ground by the manufacturer—is sifted through the finest silk mesh, as a smoother sugar is required than that usually supplied for general and household purposes. The manufacturing firms in business at the present time hold and handle many thousands of private formulas for retail chemists, up and down the country, and many of the recipes date back for a long period.

The goods are identified below in the order of the illustrations, and from left to right within the illustrations themselves.



A. L. SIMPKIN & CO., LTD.—(Left) Glucose sweets, including halibut-liver oil hexagons (containing standardised halibut-liver oil supplied by the Crookes' Laboratories); pine catarrh lozenges (containing two pine oils, creosote and menthol); Friar's balsam lozenges; and T.C.L. (throat, chest and lung) tablets.

PARAMOUNT PRODUCTS, LTD.—(Right) Glucose sweets, including Crystal Coughies; barley sugars; glycerin, lemon and honey lozenges; Vita-Mels (chocolate-centred); and digestive mints.



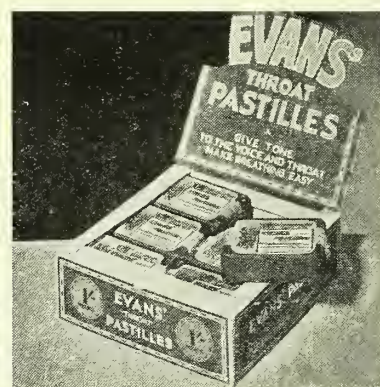
MEGGESON & CO., LTD.—(Left) Barley sugar drops.

J. BOTTOMLEY & SONS, LTD.—(Centre) Halibars (barley sugar with halibut liver oil); mint rock; treacle toffee.

WYLEYS, LTD.—(Right) Bismuth and magnesia Tropels, containing pepsin, sodium bicarbonate and peppermint.



ALLEN & HANBURYS, LTD.—(Left) Torch brand barley sugar drops and sticks in jars of various sizes. WARRICK BROTHERS, LTD.—(Right) Glucose barley sugar sticks, plain and lime flavoured; iodised throat tablets; Pigment. Mandl tablets; bismuth dyspepsia tablets.



SMITH & Co.—(Left) Crystallised mixed fruit pastilles; mixed fruit drops; barley sugar tablets; lime and lemon tablets. EVANS SONS LESCHER AND WEBB, LTD.—Glycerin, lemon and honey toffee and (right) Evans' throat pastilles.



(Left) Back row: POTTER & CLARKE, LTD.—Dr. Skelton's cough lozenges. WARRICK BROS., LTD.—Antacid lozenges. IGLODINE CO., LTD.—Iglodine tablets. Middle and front rows: THOMAS GUEST & Co., LTD.—Vox pastilles; quinine and phosphorus tablets. ALLEN & HANBURYS, LTD.—Glycerin and blackcurrant pastilles. (Right) Back row: CROOKES' LABORATORIES (BRITISH COLLOIDS, LTD.)—Collosol iodine and blackcurrant pastilles. EVANS SONS LESCHER & WEBB, LTD.—Evans' peppermint pastilles. PARKE, DAVIS & Co.—Mentholated bronchial lozenges. Middle row: SMITH & Co.—Altoids (peppermint lozenges). ALLEN & HANBURYS, LTD.—Lysantol throat pastilles. ROBERT FERBER, LTD.—Glycerin of thymol pastilles; iodised throat lozenges.



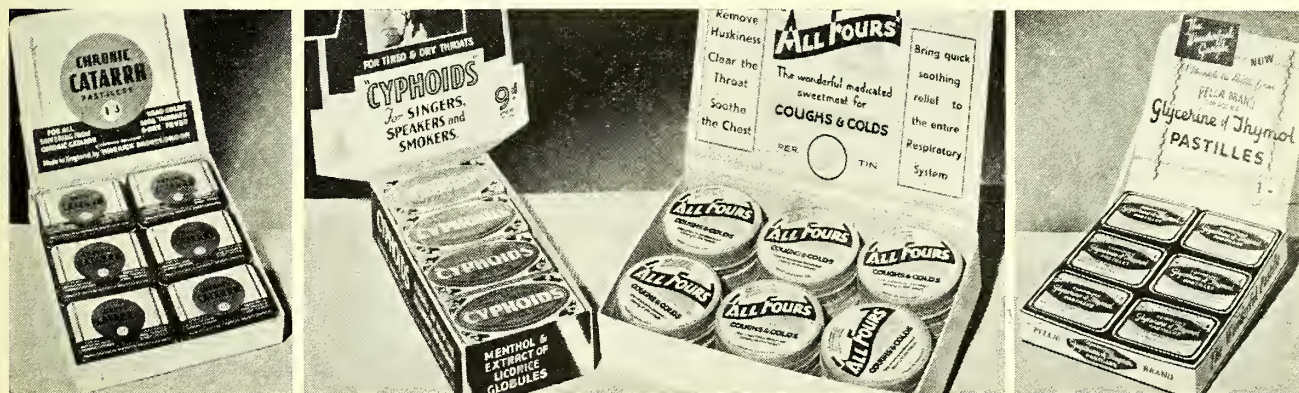
MEGGESON & Co., LTD.—(Left) Glycerin of thymol pastilles; Meg-o-Pines (pine tablets); Meggezons (antiseptic pastilles); sore throat tablets; glycerin and black-currant pastilles.

BROOK, PARKER & Co., LTD.—(Right) Glycerin of thymol pastilles; nasal and throat pastilles.

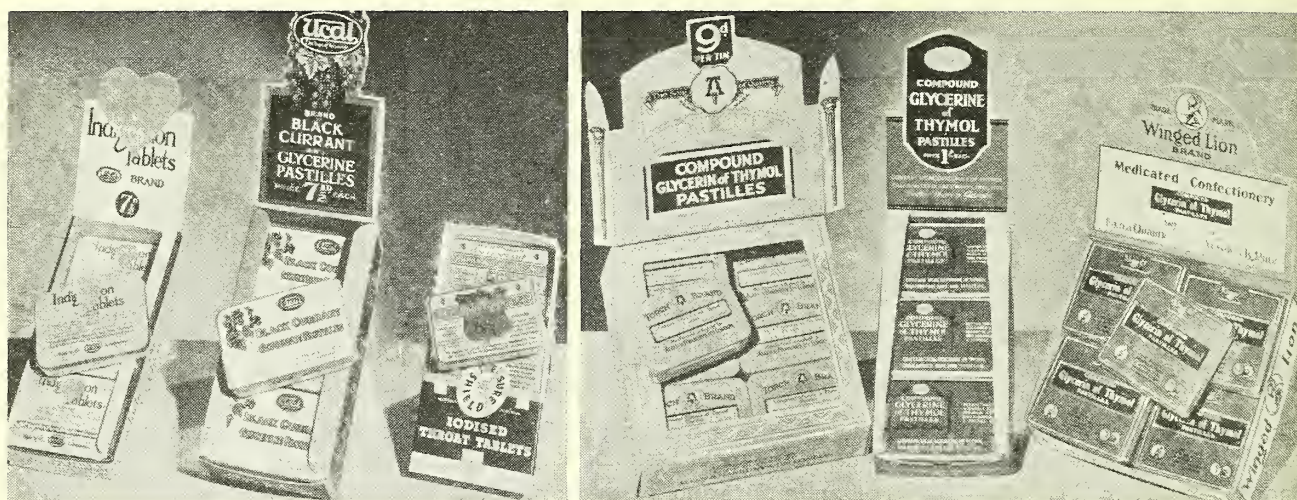


(Left) THOMAS GUEST & Co., LTD.—Catarrh pastilles (tin and carton). ROBERT FERBER, LTD.—Antiseptic pastilles. SMITH & Co.—Benoids (medicated pastilles).

(Right) ROBERT FERBER, LTD.—Breathe Easy pastilles. WARRICK BROS., LTD.—Winties (throat pastilles); EVANS SONS LESCHER & WEBB, LTD.—Ionets (medicated pastilles). IGLODINE Co., LTD.—Iglodine throat pastilles.



WARRICK BROTHERS, LTD.—(Left and right) Catarrh pastilles; glycerin of thymol pastilles. SMITH & Co.—(Centre, left) Cyphoids (menthol and liquorice globules). ARTHUR H. COX & Co., LTD.—(Centre, right) All Fours cubes.



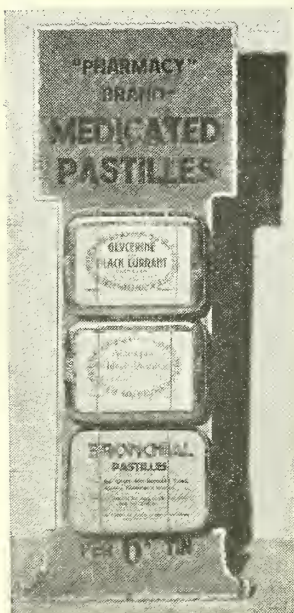
UCAL, LTD.—(Left, l. and centre) Heart-shape indigestion tablets; glycerin and black-currant pastilles.

THOMAS GUEST & Co., LTD.—(Left, r.) Sure Shield iodised throat tablets.

Glycerin of thymol pastilles (right) by ALLEN & HANBURY, LTD.; UCAL, LTD.; and POTTER & CLARKE, LTD.



POTTER & CLARKE, LTD.—(Left and right) Bulk pastilles: glycerin of thymol; Potter's cough; and Pleura. Bulk lozenges: Dr. Skelton's cough. Cartons are provided by the makers for Pleura pastilles. Dr. Skelton's cough lozenges and the glycerin of thymol pastilles are also issued as packed lines. (See page 598 and above).



BROOK, PARKER & Co., LTD.—Pharmacy brand pastilles: Those illustrated are glycerin and black-currant; antiseptic throat; and bronchial. The range includes a number of other varieties such as glycerin of thymol; nasal and throat; catarrh; glycerin, lemon and honey. Space is left on the tin for overprinting with chemists' own name. Display outers containing one dozen tins are available for some of the varieties.



CUPAL, LTD.—(L. and centre) O.B.C.'s (glucose orange barley crystals with red bone marrow); Swiss Barks (glucose cough sweets). For these confections special bags of transparent paper, overprinted attractively in colour (design as shown) are issued by the manufacturers. The sweets are intended to be sold loose by weight.

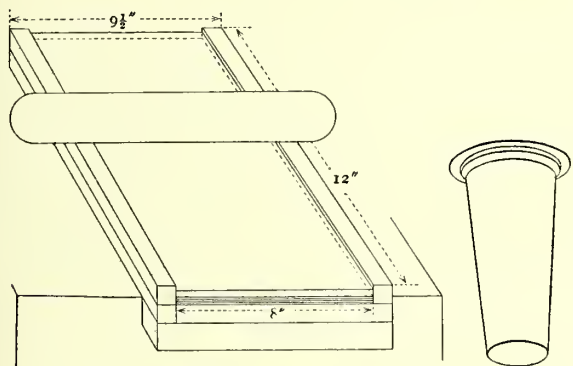
ROBERT FERBER, LTD.—Crystallised halibut-liver oil pastilles. The packing is a sack of transparent tissue, drawn together at the top.

Dispensed Lozenges and Pastilles

THE preparation of lozenges and pastilles has passed almost entirely into the hands of the manufacturers, but it should not be beyond the power of the practising pharmacist to turn out a presentable product if called upon to do so. Details are given in "The Art of Dispensing."

Lozenges

The ingredients for a batch of medicated lozenges are massed into a paste (a pestle and mortar may be used) and rolled out into a sheet of uniform thickness by means of a roller. The board used is similar in form to a pill-machine, that is to say, it consists of a flat piece with two sides to regulate the thickness of the cake. The lozenges are now cut into required shape by means of a sharp knife or, preferably, by means of the lozenge cutters that are supplied by any wholesale house. These are brass tubes of different sections, the



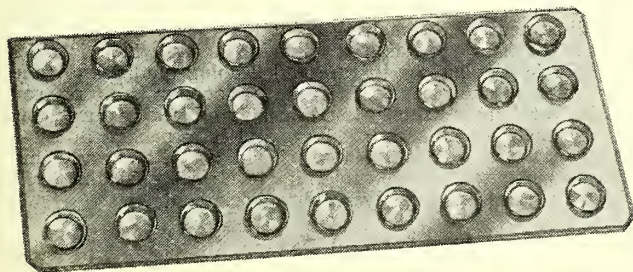
Lozenge Board and Roller

Lozenge Cutter

edges of which are sharpened. The lozenges, having been cut, are placed on a glass or porcelain tile and dried at the required temperature in the oven. The Pharmacopœial process provides for the flavouring of the lozenge basis with tincture of tolu, the official exceptions being the compound bismuth lozenge, which is flavoured with rose, and the phenol lozenge, which is unflavoured but coloured with carmine. The pharmacist should, however, be prepared to issue lozenges with any other flavouring prescribed by the practitioner.

Pastilles

Pastilles are soft, jelly-like jujubes, each weighing about thirty grains, made from a glyco-gelatin base which may be



The Bilson Pastille Mould (Wm. Toogood & Sons, Ltd.)

coloured with carmine or not, as desired, and flavoured as desired. The gelatin and glycerin base, called in the Throat Hospital Pharmacopœia "glyco-gelatin," is as follows:—

Refined gelatin	...	...	1 oz.
Glycerin	...	...	2 1/2 oz. (by weight)
Orange-flower water	...	...	2 1/2 oz.
Ammoniacal solution of carmine	...	...	a sufficiency

Cut the gelatin into shreds and soak in the orange-flower water for two hours; transfer to a water-bath, heat until the gelatin is dissolved, then add the warm gelatin gradually. Colour with carmine solution, and pour into an oiled tray to cool.

Tolu-water, formerly ordered to be used in the place of orange-flower water, is the liquor made by boiling 1 1/2 oz. of balsam of tolu in 20 oz. of water (contained in a covered vessel) for half an hour and straining off 16 oz. when cold.

The required quantity of the basis is incorporated with a calculated quantity of medicament, melted at as low a temperature as possible, and poured into moulds. During the process care should be taken to prevent, as far as possible, air from becoming incorporated through too vigorous stirring, otherwise the pastilles will present a cloudy and inelegant appearance. The mould used is preferably that designed by Mr. F. Bilson (made by Toogood), which consists of a series of small tin circular saucers soldered to a metal base. The material of the mass should be poured into the mould so that the upper surface presents a domed appearance. The mould is exceedingly convenient and the finished pastilles have an excellent appearance, each weighing about thirty grains.

A New Base

Glyco-gelatin pastilles produced extemporaneously are crude by comparison with those of the manufacturer, and *ad hoc* prescribing demands something better as a base. The B.P.C. gives official seal to

Gelatin	...	...	...	...	20.0
Glycerin	...	...	...	...	40.0
Sucrose	...	...	...	...	5.0
Ac. citric...	...	...	...	...	2.0
Sodii benz.	...	...	...	...	0.2
Ol. limonis	...	...	...	...	0.1
Triple orange flower water	...	...	...	...	6.25
Distilled water	...	...	...	...	to 100.0
Colouring, qs.	...	...	...	...

Other instances might be cited, each one recalling the fifty-year-old codeine jelly and codeine pastilles. The time factor did not seem so important then as now. The revised B.P.C. offered no improvement but perpetuated the earlier basis.

The introduction of powdered or granular edible gelatin suitable for jellies and similar culinary products suggests an alternative method not previously described of producing medicated pastilles to prescription.

In the writer's dispensary some pastilles were recently required containing a special medicament not in any manufacturer's list, and a base had to be devised which would dissolve more quickly than the traditional gum base but more slowly than glyco-gelatin. The ordinary gelatin of pharmacy was too troublesome and took far too long to produce satisfactory results. The granulated edible gelatin, being on the acid side, was found to give what was required, in the minimum of time. The following formula was devised and proved satisfactory:—

Granulated edible gelatin	...	...	20.0
Glycerin	...	...	30.0
Sucrose	...	...	15.0
Acid, tartaric	...	...	3.0
Mucilag. acacia...	...	...	ad 100.0

Colouring, flavouring, preservative and medicament were controlled by other factors but balanced to what was needed. The method of making is worth recording. Glycerin, sucrose, and acid were mixed with the mucilage in a beaker and the granulated gelatin stirred in. After about three minutes the beaker was placed in a water bath and heated until the gelatin completely dissolved. This required about five minutes.

The mould used for the pastilles is important. Where a Bilson mould is available the procedure is well known. The writer had not one available at the time, and his method was to use a lid containing loose starch. Suitable depressions were made in the starch with steel heads fixed on a lid. While this was being done the gum-gelatin solution was made ready and the process of filling the moulds was routine. Great care was necessary to eliminate air bubbles. Pastilles made in this way soon dry, and when dried the clinging starch dust is easily washed off with a thin solution of gelatin, which also acts as a sort of varnish. The new factor is, of course, the granulated edible gelatin which eliminates all the soaking and waiting. The pastilles, with whatever medicament is desired, can thus be supplied on prescription within reasonable time and without interfering with intermediate dispensing.

Notes on Confectionery Basic Materials

CONSIDERABLE quantities of the materials referred to in this article are used in the manufacture of medicated pastilles, lozenges, gums, etc.

Glucose

Glucose is a general commercial term covering a group of closely related sugars. Dextrose is an ultimate sugar, the natural sugar of the grape, and the blood sugar of the animal kingdom. In medical parlance, glucose generally means dextrose. In commerce, however, there are other kinds of glucose of which liquid glucose, i.e., confectioners' glucose, is the most important, liquid glucose being a blending of dextrose, maltose and other more complex bodies, all of which, however, become dextrose under a simple digestive action or under complete hydrolysis.

The manufacture of glucose to-day is a highly scientific business, and the scientific control exercised throughout the whole process of glucose production is at least as thorough as that exercised in the manufacture of any food product. In the commercial production of glucose, man has but followed the lead that nature has given him in the transforming of starch into sugars. This is evidenced in the brewers' mash tub by the malting of barley and the subsequent mashing of same, the natural starch of the grain being converted into the sugar maltose and other more complex bodies, all of which, if further hydrolysed, become the ultimate dextrose sugar. In this particular instance, the transformation of starch into sugars is brought about by the action of the enzyme diastase.

In commercial practice, glucose is produced not by means of an enzyme but by the well recognised method of hydrolysis, which hydrolysis, if carried to the extreme limit, produces a medicinal glucose (dextrose), which is a fine, crystalline product, whilst in the case of liquid glucose for confectionery purposes, the hydrolysis is not carried so far, a mixture of dextrose, maltose and more complex carbohydrates being produced which are not only non-crystallizable, but also have the property of preventing, or retarding as the case may be, the development of sugar crystals, and it is because of this property that it is an essential part of medicated sweets, boiled confectionery generally, etc. In the old days, sugar crystals were prevented from formation in boiled sweets, etc., by the deliberate addition of organic acids to the boiling mixture in the pan, whereby a proportion of the sugar was split up into invert sugar (dextrose and levulose), but this is a hit-or-miss method, and, moreover, the organic acids introduced into the mixture still remain in the finished product. Under modern methods an adequate proportion of liquid glucose is added to the sugar in the boiling pan. This prevents the development of the sugar crystal without introducing organic acids or the breaking down of any portion of the sugar used; also, the presence of glucose adds to the dietetic value of the sweets. In the case of medicinal sweets an addition of dextrose is also frequently made in order to increase still further the total glucose content of the sweet and further add to its energy-giving dietetic value.

Sudan Gum Acacia

The Kordofan gum of commerce is derived from the tree *Acacia vereke*, which grows wild over large areas of Africa with a belt running through Nigeria and the Senegal. The gum varies in quality according to the district from which it is gathered. Tapping of the trees, which are stunted in growth but exceedingly thorny, is carried on in the dry season, extending from November to the following May. During the season the native collectors take their stocks down to El Obeid by camel transport. Here they are sold by public auction under Government supervision in the market place and all sales are officially registered. El Obeid is the one great centre of the trade. After passing into the possession of the merchants, European and native, the gum is "cleaned" by native women, who pick out all pieces of bark, dirt, etc. The cleaned gum is then "bagged" and put on rail for Port Sudan, from whence it is shipped to all parts of the world. The women employed in cleaning the gum are usually on their way to Mecca. Some of them come from Nigeria, right across Africa to the Red Sea, which they cross in the "Pilgrims" steamers. They then

make their way through to Jeddah and finally to Mecca. These journeys of pilgrimage often take the best part of a lifetime, the natives usually staying at El Obeid for two or three years in order to earn sufficient money to enable them to complete the next stage of their journey. The bulk of this gum, which, in its natural cleaned state, is a particularly pure product and practically tasteless, is used in the manufacture of high-grade confectionery. Its light colour enables the manufacturer to produce pastilles of pleasing appearance. Other gums have been tried as substitutes, but, for various reasons, chiefly on purity and colour, the Sudan product maintains its premier position. The average crop of Sudan Gum Acacia is between 18,000 and 23,000 tons. In 1935 exports totalled 22,462 tons, of which 5,442 tons were shipped to the United Kingdom. The 1936 exports amounted to 22,665 tons, with the United Kingdom imports 5,187 tons.

Gum Tragacanth

The finest qualities of this ancient gum are used in the manufacture of medicated lozenges. The gum is the dried exudations of various species of *Astragalus* (*Leguminosæ*) found in Persia, Asia Minor and Kurdistan. Practically all the tragacanth sold on the London market comes from Persia. From the first tapping of the shrubs the superior qualities are obtained, the lower grades of a yellowish colour used chiefly in the textile industries, result from subsequent tappings. Unlike most vegetable gums, tragacanth is not dried mucilage, but consists of the cells of the pith and medullary rays in process of transformation. The white ribbon, usually described as "druggists' quality" gum, is packed in wooden cases. For over twelve months prices have ruled exceedingly high, the finest grade white gums being valued from £65 to £75 per cwt.

Vegetable Fats and Lecithin

Vegetable fats, which are used on a large scale in connexion with the manufacture of medicated chocolates, caramels and toffee, may consist of a number of products ranging from soft vegetable fat such as coconut or palm kernel oils to compound mixtures of hydrogenated vegetable fats and/or pressed vegetable stearine. The stearine, in particular, is used without any admixture mainly as a substitute for cocoa butter in chocolate, while the hydrogenated product forms a constituent of toffee and caramels.

The main countries of origin are Great Britain, Denmark, Sweden and France. This, of course, does not apply to straight oils, which originate from Ceylon and similar countries where kernels and coconuts are produced. The usual packing is in boxes containing 1 or 2 cwt., of 14-lb. moulded blocks.

The melting points of these products are particularly wide as all hardened oils can be varied by the manufacturers to range from, say, 80° F. to 120° F. In this way a product can be supplied suitable for the tropics or a very cold climate, by adjustment of the melting point.

Lecithin is a vegetable emulsifying agent which is chiefly used for improving the texture and keeping qualities of toffee, caramels and chocolates. The usual proportion is 0.6 per cent. of the total ingredients. Lecithin is produced in most countries, sometimes as a by-product, and it is packed in 140-lb. cases, containing 10-lb. slabs. It is a yellow waxy mass usually composed of two molecules of stearic acid and one of choline condensed with glycerophosphoric acid.

Menthol and Peppermint Oil

Menthol is used in substantial quantities in the manufacture of a wide range of throat and chest pastilles, gums and lozenges. The large majority of menthol crystals imported into this country come from Japan, packed in wooden cases containing 12 five-pound tins. There are several brands on the market, the chief being "Kobayashi" and "Suzuki." Owing to its purity and standardised quality, the menthol requires no treatment prior to being used as an ingredient in confectionery. Although it is chiefly used on account of its medicinal properties, its definite and strong flavour does not detract from the selling value of the finished products. Some years ago the market used to be highly speculative, with prices varying from 10s. up to as much as 60s. per lb. During the

past few years market prices have been controlled chiefly by supply and demand, with values seldom outside the limits of 12s. to 16s. per lb.

Peppermint oil is produced in many countries, but by far the chief source of supply is Japan. Other countries producing this oil are America, Bulgaria, Italy and China. A limited quantity of a very fine grade of peppermint oil is produced in this country. The Japanese product is the cheapest with prices ranging from 4s. to 6s., while the English oil is valued up to 60s. per lb. The Japanese oil is packed in 12 five-pound tins in a wooden case. The American oil is packed in 20-lb. tins, three tins to a case. Very little of this oil is used in the confectionery trade in the condition in which it arrives here from overseas. Generally it is redistilled and blended to standardised strengths. The oil in its natural state varies to some fair extent and sweet makers prefer a blended redistilled product of a uniform strength that is easy to use in their process of manufacture. Peppermint flavour in medicated sweets continues to hold its premier position.

Agar

During recent years the use of AGAR as a base for the softer kinds of pastilles has increased fairly considerably. Agar is a Japanese product made from a particular kind of seaweed. The process of manufacture is quite simple, consisting of drying and sun-bleaching, after which it is pressed-packed into bales of about 265 lb. Agar contains no added preservative and is a very pure product requiring no treatment before use. Prices, during recent years, for the first grade, Kobe No. 1, have ranged from about 2s. 3d. up to 5s. per lb. in bale lots. At these prices it is a cheap base for most descriptions of pastilles and it is very economical in use. The increasing use of agar in the manufacture of pastilles is stated to be due to the fact that it dissolves much quicker than gum acacia in the mouth. For this reason the flavour of a pastille made with an agar base appears to the consumer to be more pronounced than one made with a gum base.

Glucose Therapy

TO pharmacists who have been in business for a long period the present standing of glucose with the medical profession will appear as a pronounced contrast to the opinion universally held in earlier generations. It is not so many years since glucose was looked upon, if not precisely as a poison, at any rate as an adulterant to be kept out of food-stuffs. Only foolish parents, or so it was thought, permitted their children to indulge freely in boiled sweets. To such lengths went this objection to glucose taken that the children of wealthy parents were often dosed with cream, cod-liver oil and fatty foods generally to counteract what was thought to be wasting and debility, but was, in fact, ketosis resulting from anorexia nervosa (nervous loss of appetite) or, frequently, the asthma of childhood.

The function of glucose in medicine may be summarised as the provision of immediately available energy. The conditions in which this energy is required are those of disturbed metabolism, as in feverish states, ketosis (excessive formation of ketones in the body) and certain disorders of the liver. In health, glucose is much in favour as a source of energy for athletes, and no doubt if the Government's physical fitness campaign is widely taken up one effect will be to increase the sales of medicinal glucose and preparations containing it. In sickness the applications of glucose are chiefly in the early acute stages of certain illnesses, when the energy it supplies may sustain the patient through a critical period. Later, a more elaborate dietary may be substituted.

Physiological Action

The mechanism by which glucose supplies its energy is partly understood and partly still a matter on which controversial opinions are held. It may be taken that glucose is absorbed into the blood, since all carbohydrates are broken down into this form before they can be utilised by the body. As all pharmacists know, the final assimilation of glucose depends upon its breaking down into carbon dioxide and water, a process which is simple compared with some of the elaborate chemical interactions which take place in the organs of digestion. In certain quarters it has been suggested that the widespread use of glucose in athletics for the provision of energy is based on an alleged misconception that the body fuel of exercise is different from that of other physical states. While it is admitted that glucose is readily assimilated, the view is taken that any suitable mixed diet will serve equally well. Against this must be put the experience of athletes and trainers over a period which dates back beyond the present general popularity of glucose. It remains to examine whether there is any reliable criterion by which the true value of the substance may be ascertained. The number of calories estimated to be produced from each gram of protein or carbohydrate on metabolism is 4.1, while of fat the corresponding figure is 9.3. Yet the metabolism of fat requires a higher oxygen intake without the exhalation of carbon dioxide being greater. The ratio of volume of oxygen absorbed to volume of carbon dioxide produced is known as the respiratory quotient. By investigating this figure, and considering also the amount of excretion of nitrogen, which determines to what extent protein has been utilised in assimilation, it is possible to ascertain which of the factors protein, fat or carbohydrate is being used

in given conditions. Tests on these lines suggest that it is possible for all three to be utilised, although the evidence is slight that protein is of value in producing muscle energy, except in minute proportions. The essential food of muscular energy is carbohydrate, of which glucose is the most convenient form for use in athletics. The following statements are made by Best and Taylor ("The Physiological Basis of Medical Practice"):

"In short periods of light exercise it is probable that the energy is derived from the oxidation of materials of the same nature as those which furnish energy during rest. There are small molecules of carbohydrate, fat, and protein material already present in the circulation. Such materials are soon exhausted, however, by heavier work, when the glycogen reserves are drawn upon. In short and strenuous bouts of exercise there is general agreement that the main fuel burned is carbohydrate."

The same workers discuss the action of carbohydrate in the diet in "sparing" protein, and suggest that it relieves protein from performing the duty of supplying energy. It was observed that the sparing action was marked when carbohydrate alone was fed but virtually non-existent when the diet was fat alone. Nor could a positive nitrogen-balance be established in man on a diet composed exclusively of fat and protein. The specific sparing action of carbohydrate is thought by at least one worker to be a result of the fact that glucose is vitally necessary to the body. Consequently, when not available in the food or in the glycogen reserve of the body it is synthesised in the body from materials resulting from the breakdown of tissue protein. Another view is that glucose is essential for the synthesis of the amino acids necessary for formation of body protein, and, by consequence, for replacing wastage resulting from exercise and normal bodily activity. Nitrogen resulting from protein-tissue breakdown, or excess nitrogen from a diet consisting wholly of protein and fat, is in large measure excreted from the system. The presence of intermediary products of carbohydrate metabolism enables amino acids to be re-synthesised, with the result that nitrogen which would otherwise be wasted is reconstituted into protein.

Glucose is also utilised to complete the oxidation of fat in ketosis as well as to preserve nitrogen-balance. Unless glycogen is present in the body in sufficient quantity, fat metabolism remains incomplete and oxybutyric and aceto-acetic acids (products associated with ketosis) accumulate in the blood. An illustrative example of the prevention of this state in nature is the accumulation of carbohydrate in the body by animals prior to hibernation. In manufacturing practice, glucose is frequently associated with Vitamin D.* The reason for this is that when, in the treatment of ketosis, a low-fat diet is ordered, there is an accompanying risk of deficiency of fat-soluble vitamin D. This is overcome, and calcium assimilation assured, by the addition of Vitamin D and even, in some preparations, of calcium glycerophosphate to the prepared glucose. A further argument put forward is that the conversion of sugar into glycogen (the carbohydrate capable of being stored in the body—sugar and starch are not) is closely bound up with a combination, at some stage, of sugars and phosphates, the Vitamin D regulating phosphorus metabolism.

* Glaxo Laboratories, Ltd.

Sweets as a Vehicle for Medicine

By A. C. Dutton, M.P.S.

LOOKING back over the last five years, I have been impressed by the phenomenal increase in the sales of chemists' confectionery during that period, perhaps because the movement to popularise glucose coincided with the perfecting of moisture-proof cellophane as a wrapping material. Cellophane-wrapped barley sugars and barley-sugar sticks, introduced to the public through pharmacists, constituted a vast advance on earlier packing methods. Previously, confectionery had not been an easy line to handle, as getting sweets out of a jar for a customer was a troublesome and sticky business. Occasionally, with slow-selling lines, unsold contents would adhere in a solid mass at the bottom of the jar, and chemists almost dreaded being asked for them on account of the time wasted in hacking them out of the jar with a spatula. Cellophane wrapping eliminated wastage. There was no sticking together of the sweets, and the entire contents of every jar were saleable. Barley sugar and the crystal variety of mints afforded excellent media for the administration of glucose and dextrose owing to the high percentage of these substances which they can be made to contain. Confections of one type or another have always been regarded by the pharmacist as a convenient vehicle for the administration of certain drugs and combinations of drugs which cannot be presented in liquid form as a mixture, or which have too small a dose for the patient to manipulate himself. A chocolate base has, for example, long been used to administer santonin in the well-known "worm chocolates." The public could hardly be expected to bother with powders of phenolphthalein, but they take very kindly to the idea of laxative chocolates.

Boiled Sweets

The medical profession recognised in the high standard of chemists' confectionery a quality of sweets they could recommend with confidence to mothers as suitable for children of all ages. All children have an organic craving for carbohydrates, and sweets are good for them, provided they are perfectly pure and contain no harmful flavouring and colouring agents. Owing to the rapidity with which glucose is assimilated, boiled sweets containing a high percentage make an ideal base for confections designed to treat coughs and colds, and such drugs as camphor, menthol, eucalyptus and aromatic oils combine harmoniously in a glucose cough-cube. Insoluble matter does not enhance the taste or appearance of a boiled sweet, hence bismuth, magnesia, etc., are generally presented either as lozenges or tablets. Quite recently, however, it has been found possible to make a palatable and attractive boiled sweet containing such drugs as sublimed sulphur or stomach powder as soft centres. The medicament is made into a paste with the plastic mixture, and this is surrounded with the hard-boiled sugar coating. In this way the insoluble powder is not incorporated with the boiled sweet, which would render it gritty and unpalatable. The patient dissolves the outer casing in his mouth, and by the time he comes to the centre the drug has been made smooth by admixture with a cream of liquid glucose. Soft-centre confections are also made with glycerin fruit centres, and these have proved popular with the public.

Pastilles

Pastilles remain the ideal base for such medicaments as glycerin of thymol, iodine, creosote, etc. There are two distinct varieties of pastille: the hard gum, which, owing to its slow dissolution in the mouth, is best for catarrh, antiseptic throat, and glycerin of thymol pastilles, and the popular soft crystallised pastille which makes an excellent medium for black-currant and glycerin; glycerin, lemon and honey; crystallised fruits, etc. Pastilles containing a definite dose of halibut liver oil have probably a great future. It is possible to put a larger dose of halibut liver oil into a pastille than into boiled sweets, and the taste of the oil can be effectively masked by orange or lemon. Children whose stomachs turn at the thought of taking oil will clamour for their regular dose when it takes the form of a delicious sweet.

Toffees and Caramels

The use of toffees and caramels in pharmaceutical confectionery is limited. The chief objection from the seller's point of view is that as they contain cream and butter, freshness is essential. Where a quick sale can be effected nothing can surpass the flavour and efficacy of a toffee containing honey, lemon and glycerine. Honey mixes well with the ingredients of a toffee, and it is possible to incorporate as much as 20 per cent. without subsequent "graining," but little glycerine can be added on account of its hygroscopic qualities. In districts where brimstone and treacle is a popular spring medicine brimstone and treacle toffee commands a ready sale, while a good old-fashioned plain treacle toffee, chemists' quality, attracts many buyers in any pharmacy.

Confectionery is a good "repeat line." Regular customers who are partial to a good sweet never let their supplies run low, and are frequent visitors to the pharmacy for their favourite brand. In the last few years confectionery as a side-line has grown in importance, until now it takes its place with photography, toilet goods, etc., as an essential department of every pharmacy. The enterprising chemist who devotes a window to a display of confectionery will find that there is a large demand for this class of goods. Most manufacturers supply attractive show matter, price tickets, and even greaseproof bags in which to sell the sweets.

Pastille Flavourings

Flavours for pastilles, other than orange-flower water and tolu-water, are the fruit juices and glycyrrhizin. Rose or cinnamon water may also be used. Two drachms of cherry-laurel water with 2½ oz. of distilled water imparts a pleasant almond flavour. Raspberry-juice may be used in the same proportion as orange-flower water, lime-juice in the proportion of half juice and half distilled water. Glycyrrhizin, 24 grains, dissolved in the water used to soak the gelatin imparts an excellent liquorice flavour, which is useful to hide the taste of ammonium chloride. (As the salt is often acid, precipitating the glycyrrhizin, a few drops of solution of ammonia is added.)

Glyco-gelatin pastilles are the most convenient form of lozenge for extemporaneous preparation. The following are the doses of medicaments usually required in each:—

Acid. benzoic	...	...	...	1 gr.
Acid. boric	...	...	...	2 gr.
Acid. lactic	...	...	...	2 min.
*Ammon. chlor., T.H.	...	...	...	2 gr.
Apomorphin. hydrochlor.	...	...	...	1/32 gr.
Bismuth. carb., T.H.	...	...	...	3 gr.
Sod. bibor.	...	...	...	3 gr.
Caffein	...	...	...	½ gr.
Caffein c. menthol	...	...	...	1/10 gr.
*Ext. cascarae sagrad.	...	...	...	2 gr.
Codein	...	...	...	1/10 gr.
Ol. eucalypt.	...	...	...	½ to 2 min.
Resin gualac.	...	...	...	2 gr.
Ext. ipecac. liq.	...	...	...	¼ min.
Menthol, T.H.	...	...	...	½ gr.
Phenol	...	...	...	½ gr.
Ol. pini. (pumilio)	...	...	...	1 min.
Potass. chlorat.	...	...	...	2 gr.
*Ext. senna fruct.	...	...	...	5 gr.
*Ol. coriandri	...	...	...	1/12 min.
Tereben	...	...	...	2 min.
Terpin. hydras.	...	...	...	1 gr.
Thymol	...	...	...	1/32 gr.

The glyco-gelatin basis with glycyrrhizin may be used for those marked *, and the carmine-coloured one for the others. The glyco-gelatin basis is not suitable for astringent medicaments, such as red gum, rhatany or any other tannic substances.

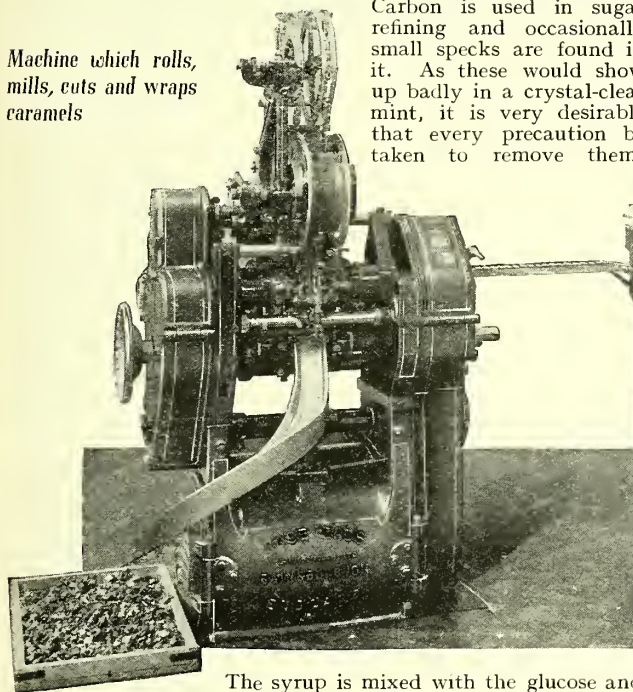
ANATOMICAL.—He had a lump the size of an egg over the trochlea, below the orbital edge, another over the frontal sinus, a third on the glabella maxima, and several little ones scattered about the sagittal suture, the coronal bregma, the parietal obelion . . . —Beachcomber in the "Daily Express."

Visit to a Pharmaceutical Confectionery Works

THE first objects that meet the eye of a visitor to a confectionery works are the huge glucose tanks. These are situated close to the main entrance in order that the glucose may be pumped into them from the large tank lorries which transport the glucose. In the boiling room is a battery of pans in which the various hard boiled sweets, such as barley sugars, crystal mints, etc., are prepared. To obtain genuine transparency, combined with keeping quality, it is necessary to take the boiling to a very high temperature, and for this reason "crystal" goods are still prepared in open pans.

The sugar is first made into simple syrup and strained to remove specks of carbon. Carbon is used in sugar refining and occasionally small specks are found in it. As these would show up badly in a crystal-clear mint, it is very desirable that every precaution be taken to remove them.

Machine which rolls, mills, cuts and wraps caramels



The syrup is mixed with the glucose and dextrose and boiled to the requisite temperature, when the contents of the pan are poured on to the cooling-table. This is a hollow metal table through which water flows. When the mass is sufficiently cool, large racks are raised and lowered upon it, and this operation cuts it into cubes. When cut, the cubes are never touched by hand as the wrapping in transparent paper is performed by machines. The output of each wrapping machine is equal to that of eight hand wrappers, and the various dies available make it possible for any shape or size of sweet to be wrapped.

The essential oils or flavouring agents must be added during the boiling process, for if added to the mass as it is cooling they would make the cubes opaque. In the case of crystal cough cubes, the addition of menthol and camphor to the boiling mass results in considerable loss, and much more than the required amount has to be used to allow for this loss. The room at this time becomes so full of menthol fumes that a stranger can hardly see or breathe, but the workers become quite used to it.

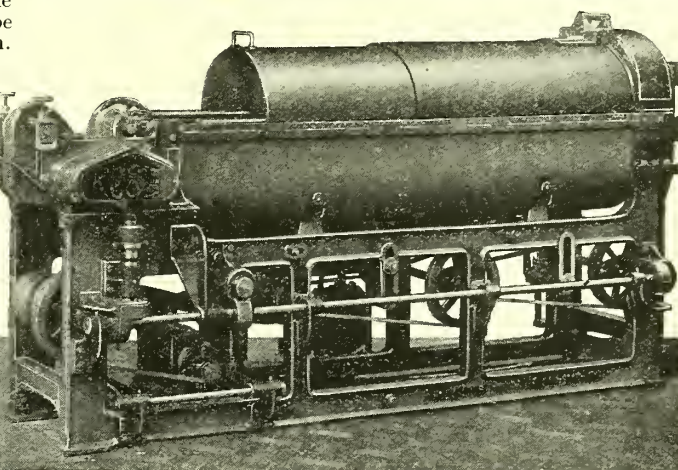
Soft Centres

It is with such goods as chocolate centres, and sulphur satins, that the greatest technical improvements have been made. In the manufacture of the sugar casing for these preparations the latest type of vacuum plant is used, its output-capacity being approximately one hundredweight every ten minutes. The sugar and glucose are first melted and then passed into a copper tank from which the mass is drawn by suction through coils into one of the two pans. These pans work alternately, one pan being always out of commission. This can be cleaned and sterilised whilst the other pan is in use, and a continuous process is thus maintained. The cook-

ing is done under vacuum, by which means the boiling point is lowered, and a considerably drier product obtained than from the open pan method. It is essential that the outer casing of soft-centre sweets should be dry.

After leaving the pans, the mass is kept continuously rolled into shape with an automatic batch roller. The plastic centre is rolled out as a continuous ribbon between the rolls of the outer casing material, and the whole now passes between a rotary stamping die, which moulds the sweets into the finished product. The sweets drop on to a revolving wire tray where a blast of dry air cools and hardens them. The base for the plastic centre may be either apricot pulp and glucose or chocolate fillings and glucose.

With caramels the process is still more continuous. After cooling on the water table, the mass is placed in a machine which rolls, mills and feeds the caramel mass into the cutting and wrapping machine by means of grooved conical rollers.



The machine, at one operation, cuts the caramel to correct size, weight and shape, and wraps it in waxed paper or cellophane, whilst the mass is still warm and plastic. The machine illustrated above is capable of an output of four hundred and sixty pieces per minute.

Pastille Manufacture

The starch room is where the pastilles are made. It occupies considerable space on account of the need for large drying ovens in which the pastilles are dried after the base has been run into the starch moulds. Once in the cabinet, they are subjected to a continuous current of hot air, supplied by a system of fans, for fourteen days. The starch trays are then removed, and the contents placed in an agitator. This separates the finished pastilles from the powdered starch, and revolving brushes remove all adhering particles. Crystallised pastilles are prepared by immersing the pastilles in large tanks of syrup, which is allowed to drain off before drying in a hot current of air. This is the correct method of crystallising pastilles. Certain cheap grades of pastilles are produced by rolling the pastilles in white sugar, but this method is not employed by firms manufacturing pharmaceutical confectionery.

In the drug room, the pharmacist feels at home, for here are row upon row of winchesters, bottles, tins and boxes of drugs, oils, essences and colouring agents. Here, too, are tanks containing several oils of peppermint in process of blending. Many of the drugs used in the manufacture and preparation of chemists' confections are familiar to pharmacists. Examples are orris root powder, used in lozenges, and lecithin for emulsifying oils. In this room the quantities are weighed and measured according to the recipes by one worker, checked by a second, and sent into the works.

The works described are those of Paramount Products, Ltd., Bradford, to which the illustration also applies.

A Display of Chemists' Confectionery

BELOW will be seen an illustration of a window display of such unusual character as to call for some amount of explanation. At first sight it appears to break many accepted rules of display, but since it has, in fact, been carefully thought out, an account of the considerations which

prompted its arrangement in precisely this manner may serve to correct this impression. There is a real danger in arranging a display of chemists' confectionery that the appearance of the resulting window may suggest a confectioner's shop rather than a pharmacy. The very nature of the goods makes this

CHEMISTS' CONFECTIONERY

SUPERIOR IN QUALITY *Wholesome and health-giving*



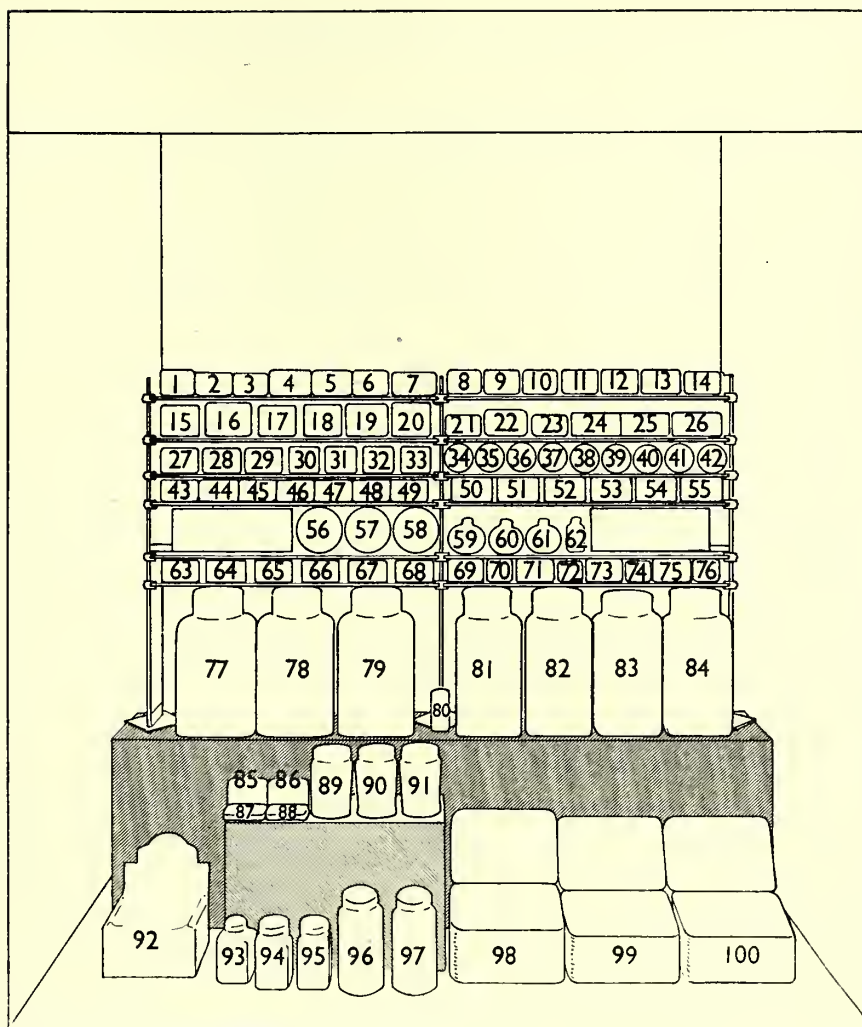
hard to avoid, if the newer varieties of confectionery, sold by weight from jars, are to be included. Yet this suggestion is probably most undesirable, and an effort seems called for to avoid it. Small tins of pastilles and lozenges are hardly strong enough, in an optical sense, to counterbalance the large jars in any orthodox disposal of the goods. Moreover, in an inspection of a large number of Metropolitan confectionery displays it was observed that the general style of window dressing adopted was one in which the goods were placed closely together yet in many receding planes, entirely filling the window space. In order to achieve an entirely distinctive style of display, it was therefore decided that in the chemist's confectionery window the goods should be set out as far as possible in a single plane and that an ample margin of space above, below and on either side of the grouped packages should be provided. This decision was made more simple to carry into effect by the fact that, bulk containers apart, most of the remaining packages were flat tins. At the same time, it was thought desirable to aim at some massing of the small tins in order to increase their relative importance as compared with the jars. This was another obstacle, because the tins do not lend themselves to building in groups. The obstacle was overcome by the use of a special type of display stand which enabled the shelves to be set at any desired level. They were set to accommodate each a row of tins, standing on edge, with practically no space above. Thus, not only were some of the shelves devoted to one product alone, giving it by repetition a share of attention a single tin could not hope to attract, but also the resulting compact mass of tins served to emphasise the advantages of this type of packing without being overwhelmed by the inherently more noticeable bottles below. The sizes of standard shelves available from the shop fitters determined that there must be two halves to the display, and the show material (pelmet and two showcards) were designed to make a virtue of this necessity and at the same time to bear out the horizontal lines resulting from the method of display.

The diagram on this page gives a reasonably clear indication of the procedure followed. As a base upon which to place the glass display stands, two prisms totalling four feet in length (the window itself was five feet) were laid upon the deck of the window about fifteen inches from the glass, and two others, of an equal length, laid upon them to form a platform. This base was covered with display paper (crepe mounted on plain paper, as supplied in rolls from suppliers of shopfittings). The base of the window was then dressed and the goods themselves carefully pushed forward to the front of the shelves to complete the display.

The display was put in with the assistance of

J. C. KING, LTD., Goswell Road, London, E.C.1,

who supplied the stands, clips, and display paper (No 1553 WD).



KEY TO GOODS SHOWN

- | | |
|--|---|
| 1 and 2.—Guest's catarrh pastilles. | 56–58.—Smith's boiled sugars. |
| 3.—Vox bronchial pastilles. | 59.—Warrick's bismuth dyspepsia tablets. |
| 4.—Evans' peppermint pastilles. | 60.—Warrick's Pigment Mandl tablets. |
| 5.—Evans' throat pastilles. | 61.—Warrick's iodised throat tablets. |
| 6.—Benoids. | 62.—Iglodine tablets. |
| 7.—Ferber's iodised throat lozenges. | 63–68.—Wyley's bismuth and magnesia Tropels. |
| 8.—Ferber's antiseptic pastilles. | 69, 71, 73, 75.—Sure Shield brand fruit laxatives. |
| 9.—Ferber's glycerin of thymol pastilles. | 70, 72, 74, 76.—Quinine and phosphorus tablets. |
| 10 and 11.—Collosol iodine and blackcurrant pastilles. | 77.—Simpkin's T.C.L. lozenges. |
| 12 and 13.—Sure Shield brand glycerin of thymol pastilles. | 78.—Simpkin's Friar's balsam lozenges. |
| 14.—Parke, Davis & Co.'s Mentholated bronchial lozenges. | 79.—Simpkin's halibut liver oil hexagons. |
| 15.—Iglodine pastilles. | 80.—Vox pastilles. |
| 16.—Winties. | 81.—Paramount crystal coughies. |
| 17.—Breathe Easy pastilles. | 82.—Paramount glycerin, lemon and honey tablets. |
| 18.—Winged Lion brand glycerin of thymol pastilles. | 83.—Paramount digestive mints. |
| 19.—Warrick's glycerin of thymol pastilles. | 84.—Paramount barley sugars. |
| 20.—Ionets. | 85 and 86.—Altoids. |
| 21–23.—Allenbury's glycerin and blackcurrant pastilles. | 87 and 88.—Cyphoids. |
| 24–26.—Dr. Skelton's cough lozenges. | 89–91.—Warrick's barley sugar. |
| 27–29.—Torch brand glycerin of thymol pastilles. | 92.—Smith's mixed fruit pastilles. |
| 30–33.—Lysantol throat pastilles. | 93–97.—Allen & Hanbury's barley sugar sticks and drops. |
| 34–42.—Cox's All Fours cubes. | 98.—Evans' glycerin, lemon and honey toffees. |
| 43–49.—Sure Shield brand iodised throat lozenges. | 99.—Potter and Clarke's glycerin of thymol pastilles. |
| 50–55.—Pleura pastilles. | 100.—Potter's cough pastilles. |

Confectionery Flavourings

AT a recent meeting of the Food Group of the Society of Chemical Industry, a paper on "Natural Flavouring Materials and Essences" was read by S. W. Bradley and G. R. A. Short ("Chemistry and Industry," November 13). The authors state that it has been shown that black-currant juice contains nearly three times as much ascorbic acid as lemon and orange juices; the other juices examined may be arranged in descending order of their ascorbic acid contents as follows: strawberry, red currant, gooseberry, raspberry and whortleberry, while cherry and blackberry contain only traces. Fruit juices used for flavouring aerated waters and milk shakes are almost invariably employed in the form of syrups the sugar content of which may vary between 4 and 8 lb. to the gallon of finished syrup. These products are manufactured either by stirring sugar with the cold juice or the sugar may be dissolved by the aid of heat; with very few exceptions, however, the cold process syrups have the fresher flavour.

Natural or Synthetic

The natural fruit essence in its simplest form may be prepared by macerating the fruit in alcohol for some weeks, after which the liquid is drawn off, the pulp pressed, and the combined liquors filtered. In the case of the citrus fruits the peel only is used for this purpose. Such an essence prepared from one or more acid fruits has the disadvantage of instability, since upon storage the fruit acids esterify with the alcohol with the production of a vinous character which eventually masks the fruit flavour almost completely. These essences or natural fruit juice products which may or may not be depectinised should form the bases of fruit essences for use in beverages or confectionery. The skill of the compounder in the use of synthetics is indeed very great, but the authors do not think that any fruit essence is complete without its due proportion of natural constituents, although they admit that the use of modern synthetics is essential to give strength and character. There has been a tendency of late in some quarters to deplore the use of the so-called "synthetic fruit flavours," but in the confectionery trade at least the use of such flavours is essential for the production of palatable sweetmeats. It is only by a judicious blending of fruit extracts with products from other natural sources and small amounts of the finest synthetics that a first-class essence can be produced. Many countries forbid the use of synthetic flavourings without declaration and a few permit the presence of small amounts under similar conditions. The vanilla bean was used by the Aztecs, before the discovery of America, as a flavouring for their chocolate, but it was not seen in Europe until the early part of the sixteenth century. The tincture, prepared by macerating the beans in alcohol, has been the basis of all vanilla essences for many years. The commercial essences usually have vanillin added to them together with other synthetics and many of them are simple coloured solutions of vanillin.

Herbal Flavours

Saffron, consisting of the stigmas of a species of crocus, has been in use for centuries, and is of interest in that it still finds employment both as a flavouring and colouring material in the well-known Cornish saffron cakes and in barley-sugar sticks. While the colour of this substance can be matched by means of coal tar dyes, so far the flavour has no synthetic counterpart. The Bitters form a class of flavours which have uses primarily as appetisers, but they may be grouped according to their spheres of usefulness as follows: hops are used almost exclusively in the brewing both of beer and herbal beverages, while quinine and quassia impart bitterness to the well-known tonic waters. The more "herby" bitters, of which chiretta, gentian, and wormwood are types, are ingredients of certain cocktail flavours, and cinchona imparts its medicinal virtues to some tonic wines. Tonka beans, the chief aromatic constituent of which is coumarin, are useful adjuncts to vanilla in caramel and toffee flavours. However, on economical grounds synthetic coumarin replaces the beans entirely in the cheaper essences. Liquorice is an important flavouring material in the confectionery industry, especially as a constituent of winter lines such as linseed, liquorice and chlorodyne lozenges and gums. The powdered root is often used in the lozenges, but the majority of the liquorice employed in confectionery

is in the form of extract known as "block juice." The cultivation of liquorice and preparation of this extract was formerly a flourishing industry round Pontefract, in Yorkshire, where large quantities of liquorice confectionery is still manufactured, but practically the whole of the block juice used there now is imported from the United States, though actually some liquorice is still grown in the Pontefract district.

Guarana, which is consumed chiefly by the Brazilians, is prepared by rasping a quantity of the dried paste into cold water. Essences of this substance are only in small demand, but efforts are being made in South America to popularise it in the form of aerated beverages. Kola nuts have of course been used in mineral waters for many years and, judging by the advertisements seen at the present time, it would seem that this flavour is still popular.

Essential Oils

The employment of essential oils falls necessarily into two wide divisions, from which naturally there are exceptions: (1) for use in the mineral water or soft drink industry; (2) for foodstuffs, including confectionery. In the second the oils, which may be purified or used as obtained, are incorporated directly with the material they are to flavour. The citrus group of fruits, comprising the lemon, orange, lime, mandarin and grape fruit, are perhaps the most important. The essential oils of these fruits consist for the greater part of terpenes which are without flavouring value, and the content of oxygenated bodies upon which the odour and flavour depend is relatively low. Except in the instance of distilled lime oil, the presence of these terpenes and also natural waxes renders the solubility in 90 per cent. alcohol incomplete and would if used by themselves in a beverage give to the product a cloudiness with some oil separation. Recourse must therefore be had to some form of treatment whereby the flavouring principles of the original oil are concentrated. This may be accomplished in various ways; the oil may be extracted by alcohol of suitable strength under appropriate temperature control, whereby a soluble essence is obtained, meaning that in its final use for flavouring a beverage the constituents of the oil will remain in solution in the final product. Careful fractionation in high vacuum also provides a means whereby the oxygenated bodies are so concentrated as to be readily soluble in low-strength ethyl alcohol. The concentrated oils are available in two grades, one known as terpeneless and a more highly concentrated form sesquiterpeneless; these terms are of course self-explanatory. Terpeneless lemon oil is easily soluble in 80 per cent. alcohol and sesquiterpeneless in 70 per cent. alcohol. After dealing with peppermint and spearmint attention was called to the use of clove oil in confectionery. The bud oil, with its useful content of eugenyl esters and ethers, is the choicest quality. It has a value as a flavour in medicaments, and mention was made of other oils that give similar service, e.g., cassia, cinnamon, caraway, dill, aniseed, peppermint, and lavender. There is, however, another virtue in that these oils possess valuable carminative properties, and therefore, in addition to making nauseous mixtures more palatable, they also play a humble part in allaying suffering. Ginger has a universal use in the preparation of extracts and essences for ginger ales and ginger beers. Ginger oil itself obtained by distillation, is without the characteristic pungent principle, and consequently where this is required, use is often made of tincture or oleoresin of capsicum. As a base for essence work, a tincture made by the maceration of the rhizome in alcohol is used, and this possesses both pungency and flavour, and subsequently can be strengthened by the addition of oil and augmented by lemon and other constituents of the ginger ale complex. It is extremely difficult to produce an essence which will give the natural odour and flavour of ginger beer brewed from the root. Aniseed oil is used in large quantity and employed directly in flavouring boiled goods. Many essential oils and other natural products which are generally associated with the perfumery and cosmetic industry find application as adjuncts to the essence industry. Tincture of orris is a commonplace ingredient of raspberry essence and other fruit flavours.

Otto of rose, alcoholic washings of floral concretes, tinctures of Tonka bean, natural musk, etc., are constituents of many essence bases. Amongst the less common oils may be mentioned hyssop, marjoram, angelica, cascarilla, angostura, carrot seed and basil.



Fig. 1

Show Matter

FOR CHEMISTS' CONFECTIONERY

ABUNDANT show material is available for those who wish to make displays of chemists' confectionery, and we have not been able to illustrate more than a small selection of the numerous examples of showcards, cut-outs and display outers sent in. The specimens illustrated are, left to right:—

CUT-OUTS (FIG. 1).—Torch Brand glucose barley sugar (Allen & Hanburys, Ltd.); Collosol iodine and black-currant pastilles (Crookes' Laboratories); Sure Shield catarrh pastilles and Sure Shield iodised throat tablets (Thomas Guest & Co., Ltd.); Orange Barley Crystals and Swiss Barks (Cupal, Ltd.).

SHOWCARDS (FIG. 2).—All Fours Cubes (Arthur H. Cox & Co., Ltd.); halibut liver oil hexagons (A. L. Simpkin & Co., Ltd.); bismuth and magnesia tropels (Wyleys, Ltd.); Sure Shield fruit laxatives (Thomas Guest & Co., Ltd.).

SHOWCARDS (FIG. 3).—Sure Shield iodised throat tablets and Vox pastilles (Thomas Guest & Co., Ltd.); Mentholated bronchial lozenges (Parke, Davis & Co.).

CUT-OUTS (FIG. 4).—Allenbury's pastilles (Allen & Hanburys, Ltd.); mixed fruit tablets (Smith & Co.); Evans' throat pastilles (Evans Sons Lescher & Webb, Ltd.).

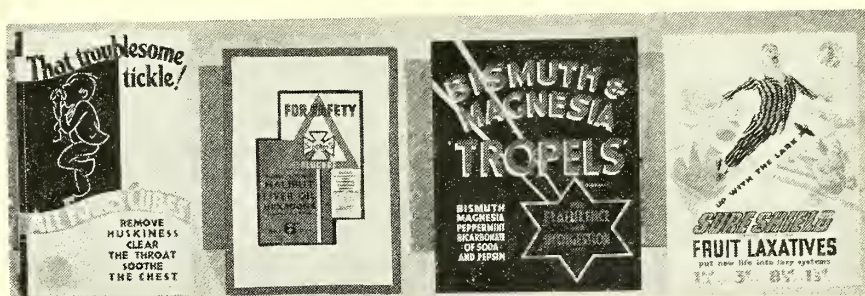


Fig. 2

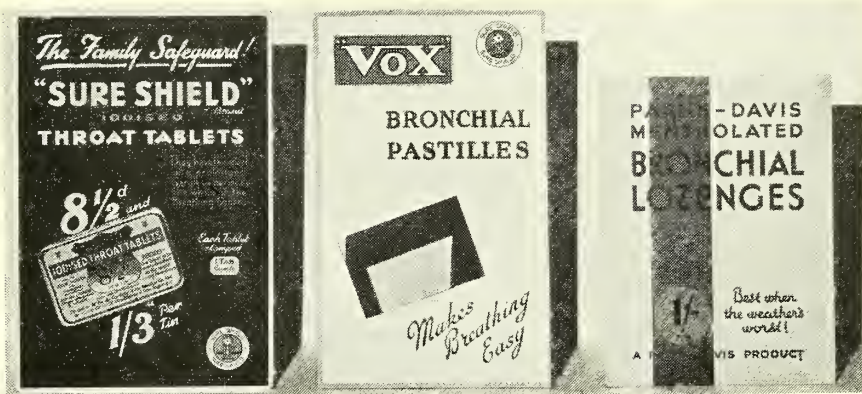


Fig. 3



Fig. 4

Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

28 Essex Street, W.C.2, November 18

THE routine trade from consumers continues on a moderate scale, but most orders are for restricted quantities. It is evident that the markets are not being supported with the confidence of a month or two ago. There is, however, no sign that the present weakness in the leading commodity markets is affecting to any extent values in drugs, chemicals and essential oils. In these markets conditions may fairly be described as "steady but rather dull." Transatlantic Conference Lines have advanced their freight rates by a further 10 per cent. this week. There is little to comment on in PHARMACEUTICAL CHEMICALS. EPHEDRINE HYDROCHLORIDE (B.P.) continues in very short supply, but the demand appears to have been satisfied for the time being.

Crude Drugs

There has been more inquiry this week for new crop AGAR, but consumers are in no hurry to contract at current quotations. Curaçao ALOES are now very firm; the source reports all stocks sold at high prices to New York. Japanese CAMPHOR is fully steady and spot sales are satisfactory. The shipment market for green Aleppy CARDAMOMS touched a very low figure, but has since recovered sharply. CASCARA SAGRADA is steady, but in small request. Madagascar CLOVES are quoted easier. The Norwegian COD-LIVER OIL shipment market remains dull. A further decline in the spot and shipment values of Sudan GUM ACACIA is recorded and business is still poor. All descriptions of HONEY are steady, but in quiet demand. HYDRASTIS has been selling cheaply on spot compared with the firm shipment position. Matto Grosso IPECACUANHA is selling at full prices. Japanese MENTHOL has met with a brisk demand on spot; Japanese shippers' quotations are dearer. It had previously been reported that a parcel of rough round RHUBARB had been shipped from Shanghai and that it was due to arrive here early next month; now, we are advised, there is some doubt whether the goods are on board the steamer named. SENEGA is a good market, and some fair business is reported. Values for all grades of TRAGACANTH are fully maintained.

Essential Oils

Reports indicate that business has been nothing more than moderate this week. Values are keeping fairly steady. Spot sales of ANISE (STAR) continue at full prices. BERGAMOT, except for small spot orders, is neglected. CAJUPUT is quoted cheaper. A limited demand for CASSIA, with holders' prices fully maintained. Ceylon CINNAMON LEAF shows a further decline for shipment, Madagascar CLOVE is again easier for shipment. While spot quotations for Australian EUCALYPTUS continue at keen prices, the shipment market is very firm. Moderate spot business in HO (SHIT) is reported. Quotations from the source for new crop Sicilian hand-pressed LEMON are being maintained, with buyers showing no interest. New crop MANDARIN is cheaper as quoted by some shippers. The first reliable offer of new crop French Guinea ORANGE was received this week, with a high figure indicated. PALMAROSA is scarce and dear on spot. Japanese PEPPERMINT continues to sell freely on spot at full prices; the shipment market is firm at the higher quotations.

A drug auction will be held at the Commercial Sale Rooms, Mincing Lane, E.C.3, on Thursday next, November 25.

Exchange Rates on London

The following is a list of the chief Continental and other exchange rates at the opening on Thursday morning:—

Centre	Quoted	Par	November 11	November 18
Amsterdam ...	Fls. to £	12·107	9·02	9·02½
Berlin ...	Mks. to £	20·43	12·37	12·38
Brussels ...	Belgas to £	nominal	29·39	29·40
Copenhagen ...	Kr. to £	18·159	22·40	22·40
Lisbon ...	Esc. to £	110	110½	110½
Madrid ...	Ptas. to £	25·22½	nominal	nominal
Milan ...	Lire to £	92·46	95	95½
Montreal ...	Dols. to £	4·86¼	4·99½	5·00
New York ...	Dol. to £	nominal	4·99½	5·00
Oslo ...	Kr. to £	18·159	19·90	19·90
Paris ...	Fr. to £	124·21	147½	147½
Prague ...	Kr. to £	164·25	142	143
Stockholm ...	Kr. to £	18·150	19·40	19·40
Warsaw ...	Zloty to £	43·38	26½	26½
Zurich ...	Fr. to £	25·2115	21·58	21·62

Bank rate 2 per cent.

Pharmaceutical Chemicals, etc.

RATHER quiet conditions continue in most products in this market. There is no change in the home trade prices for aspirin powder. Ephedrine has been very quiet this week.

AMIDOPYRINE.—Convention prices unchanged: two cwt., 8s. 10d.; one cwt. 9s. 1½d.; less than one cwt., from 9s. 5½d. per lb.; powder, 2½d. per lb. extra.

ASPIRIN.—Makers' and dealers' prices are steady, average business reported: home trade, ten cwt., 2s. 7d.; five cwt., 2s. 8d.; one cwt., 2s. 8½d.; 28 lb., 3s.; 14 lb., 3s. 1½d.; 7 lb., 3s. 2½d.; 4 lb., 3s. 4½d.; 1 lb., 3s. 7d. per lb. Bulk packing free, net, carriage paid. Contracts, over twelve months, minimum one ton; over six months, less than one ton.

BARBITONE.—Market is quiet: spot, two cwt., 8s. 9½d.; 56 lb., 8s. 11½d.; small parcels, up to 9s. 2½d. per lb.

BENZOIC ACID (B.P.).—Competitive prices for bulk quantities at about 1s. 9d. per lb., ex works or stores: spot parcels, 1s. 10d. to 2s. 3d. per lb., ex store, as to quantity.

BISMUTH SALTS.—Makers' scales of prices continue steady. Carbonate, not less than one cwt., 6s. 6d.; 28 lb., 6s. 9d.; 8 lb. 7s. 3d.; 4 lb., 8s.; less than 4 lb., 8s. 6d. per lb.

BROMIDES.—Makers' scales of prices steady. POTASSIUM, B.P., five cwt., 1s. 8d.; one cwt., 1s. 9d.; 28 lb., 2s. per lb. SODIUM, B.P., five cwt., 1s. 10d.; one cwt., 1s. 11d.; 28 lb., 2s. 2d. per lb. AMMONIUM, B.P., five cwt., 1s. 11d.; one cwt., 2s.; 28 lb., 2s. 3d. per lb. net. Resale clause applies, 27-lb. parcels and one-cwt. cases free. Smaller quantities than 28 lb. at higher prices. Export quotations are maintained, as follows: POTASSIUM, B.P., five cwt., 1s. 4d.; one cwt., 1s. 4½d. SODIUM, B.P., five cwt., 1s. 5d.; one cwt., 1s. 5½d. AMMONIUM, B.P., five cwt., 1s. 6½d.; one cwt., 1s. 7d. per lb., f.o.b.

CITRIC ACID (B.P.) CRYSTALS.—Values steady at former quotations: British material quoted at 1s. 0½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers' prices for imported material are competitive.

CREAM OF TARTAR.—Steady as quoted: British materials, 99 to 100 per cent., 92s. per cwt., less 2½ per cent. discount. Dealers' prices for foreign material competitive.

EPHEDRINE.—Practically no inquiry this week. Supplies of HYDROCHLORIDE (B.P.) continue small, with the price nominal in the region of 18s. to 20s. per oz. Pure alkaloid is also dull, with the value about 22s. to 23s. per oz.

GALLIC ACID.—Fair business, values fully steady: one cwt., 3s.; 56 lb., 3s. 1d.; smaller parcels, up to 3s. 6d. per lb.

IODIDES.—The agreed scales of prices for iodides, iodine and iodoform are as follows:—POTASSIUM, B.P.—1 cwt., 4s. 6d.; 28 lb., 4s. 9d.; 14 lb., 5s.; 7 lb., 5s. 6d.; 4 lb., 6s.; smaller quantities, 6s. 6d. per lb. SODIUM, B.P., 28 lb., 5s. 9d.; 14 lb., 6s. 1d.; 7 lb., 6s. 7d.; 4 lb., 7s. 3d.; smaller quantities, 8s. 1d. per lb. IODINE, B.P., RESUBLIMED.—1 cwt., 5s. 4d.; 28 lb., 5s. 7d.; 14 lb., 5s. 10d.; 7 lb., 6s. 4d.; 4 lb., 7s.; smaller quantities, 7s. 9d. per lb. IODOFORM, B.P., CRYST. PRECIP. OR POWDER.—28 lb., 8s.; 14 lb., 8s. 4d.; 7 lb., 8s.; 4 lb., 9s. 10d.; smaller quantities, 10s. 8d. per lb. Contracts for one cwt. and upwards (assorted if required) with fall clause, with delivery as required during four months. 28-lb. tins and one-cwt. cases free. All jars and bottles charged, but credited if returned carriage paid, in good condition, within three months. Assorted quantities are charged at the collective total weight. It is a condition of sale that buyers undertake not to resell any quantity of the above products at prices or terms below the scale for any such quantity current at the time the resale is made.

IRON QUININE CITRATE.—Makers' prices are as follows: not less than 100 oz., 10½d., in 100-oz. tins; 10½d., in 25-oz. tins; 11d., in 16-oz. bottles; 11½d., in 4-oz. and 8-oz. bottles; 1s. 0½d., in 1-oz. bottles, to 1s. 5½d.

LACTIC ACID. (B.P.).—Market steady: quantities in carboys, 1s. 4½d. to 1s. 5d.; in winchesters and bottles, 1s. 6d. to 1s. 10½d. per lb., as to quantity.

MERCURIALS.—Makers' scales of prices for these salts are steady. CHLORIDE, B.P. (CALOMEL).—One cwt., 5s. 11d.; less than one cwt., from 6s. per lb.

METHYL SALICYLATE.—Business on a modest scale: spot, ten cwt., 1s. 1½d.; five cwt., 1s. 2d.; one cwt., 1s. 2½d.; less than one cwt., 1s. 2½d.; small quantities, in bottles, up to 2s. per lb.

METHYL SULPHONAL.—Market is dull: two cwt., 19s. 3½d.; one cwt., 19s. 9½d.; 56 lb., 20s. 2½d.; small parcels, 20s. 8d. per lb.

PARAFORMALDEHYDE.—Limited business: 100 per cent. powder, quantities in kegs, 1s. 1d. to 1s. 1½d.; smaller parcels, up to 1s. 4½d. per lb., as to quantity.

PARALDEHYDE.—Quantities in demijohns from 1s. 1d. and smaller lots in winchesters about 1s. 4d. to 1s. 6d. per lb.

PEPSIN.—Prices for the 1/2,500 continue steady, with 50 lb. or less quoted at 10s. per lb. net, ex store.

PHENACETIN.—Quiet demand, quotations unchanged: crystals or powder, bulk quantities, 2s. 6d.; smaller parcels, 2s. 7d. up to 3s. per lb., as to quantity.

PHENAZONE.—Competition for a small business: crystals, five cwt., 6s.; two cwt., 6s. 2½d.; one cwt., 6s. 5d.; smaller quantities, up to 6s. 9d. per lb., with powder 2½d. per lb. extra.

PHENOLPHTHALEIN.—Market remains quiet: two cwt., 2s. 9d.; one cwt., 2s. 10d.; 28 lb., 3s.; 14 lb., 3s. 1d.; 7 lb., 3s. 2d.; smaller parcels, up to 3s. 6d. per lb.

PHENYLETHYLBARBITURIC ACID.—Small quantities in bottles are quoted in the region of 23s. per lb., in 2-lb. bottles.

POTASSIUM PERMANGANATE (B.P.).—Steady demand for small parcels: bulk quantities, in drugs, 9d.; druggists' parcels, from 10d. to 1s. per lb.

POTASSIUM SULPHOGUAIACOLATE.—Dealers' spot prices quoted at about 6s. 1½d. to 6s. 3d. per lb., as to quantity.

PYROGALLIC ACID.—Continues steady at the recent advance as follows: crystals, 28 lb., 7s. 3d.; 14 lb., 7s. 9½d.; 7 lb., 8s. 9d.; under 7 lb., 9s. 3d. per lb.

QUININE SALTS.—Convention prices continue unchanged: sulphate, 2s. 2d.; bisulphate, 2s. 2d.; ethyl carbonate, 2s. 9½d.; salicylate, 2s. 10½d.; hydrochloride, 2s. 8½d.; bihydrochloride, 3s.; hydrobromide, 2s. 8½d.; bihydrobromide, 3s.; valerianate, 3s.; hydrophosphite, 4s.; alkaloid, 3s. 10½d. per oz., carriage paid on bulk quantities; 100-oz. tins free, smaller packages extra.

SALICYLIC ACID (B.P.).—The demand is quiet: five cwt., 1s. 7d.; one cwt., 1s. 7½d.; 28 lb., 1s. 10d.; 14 lb., 1s. 11½d.; 7 lb., 2s. 0½d.; 4 lb., 2s. 2½d. per lb.

SALOL.—Business slow; competitive quotations: from about 2s. 3d. to 2s. 7½d. per lb., as to quantity.

SANTONIN.—As recorded last week, first-hand suppliers are quoting from £15 per kilo. The demand continues poor, and there may be sellers at less than this figure.

SODIUM SALICYLATE (B.P.).—Business limited, makers' prices unchanged: home trade, crystals or powder, five cwt., 1s. 5½d.; one cwt., 1s. 6d.; 28 lb., 1s. 9d.; 14 lb., 1s. 10d.; 7 lb., 2s.; 1 lb., 2s. 3d. per lb.

SULPHONAL.—Remains very quiet: crystals or powder, two cwt., 15s. 5d.; one cwt., 15s. 11d.; 50 lb., 16s. 1d.; smaller parcels, up to 16s. 7½d. per lb.

TANNIC ACID (B.P. LEVISS).—Spot values unchanged as quoted at 2s. 9d. to 3s. per lb., as to quantity.

TARTARIC ACID (B.P. CRYSTALS).—Market is steady: British makers quote at 1s. 1½d. per lb., less 5 per cent. discount. Dealers offering foreign materials at competitive prices.

Crude Drugs, etc.

ACONITE ROOT.—Some *Napellus* is offered for shipment at about 97s. 6d. per cwt., c.i.f.

AGAR.—Market is quiet on spot; some interest in new crop for shipment: spot, Kobe, No. 1, 3s. 7½d. to 3s. 9d., as to quality; No. 2, 3s. 6½d. Yokohama, No. 1, 3s. 6d. per lb., shipment, new crop, January-February, Kobe, No. 1, 2s. 7½d. to 2s. 9d.; No. 2, March-April, 2s. 6d.; Yokohama, No. 1, 2s. 5½d. per lb., c.i.f.

ALOES.—Curaçao continues firm and in demand on spot. The source reports all stocks have been sold to New York at equal to 150s., c.i.f. Cape, spot, 63s. to 64s.; shipment, 62s. 6d. to 63s., c.i.f. Curaçao, spot, coarse livery, manufacturing quality, 137s. 6d.; smooth black, turning, 142s. to 145s.; livers, from 147s. 6d. to 155s. per cwt., ex store. No shipment offers.

AMMONIACUM.—Spot supplies of fairly clean pale drop at about 1s. to 1s. 1d. per lb., in bond.

ANNATTO SEED.—Market quiet, supplies small: Madras, 3½d.; Jamaican, fair colour, 4½d. per lb., ex store.

ANTIMONY.—Chinese crude, spot, £46; shipment, November-December, £39, c.i.f. English regulus, £87 10s. to £88 10s. per ton.

ARNICA FLOWERS.—Dealers quoting small parcels on spot at about 1s. 3d. per lb., ex store.

BALSAMS.—Values steady, business quiet: *Tolu*, 1s. 10d.; *Canada*, 4s. 9d.; *Copaiba*, 2s. 1d. to 2s. 2d.; *Peru*, 5s. 4d. per lb., spot.

BELLADONNA.—Spot supplies available: leaves, 55s.; root, 47s. 6d. to 52s. 6d. per cwt., spot.

BUCHU.—Small business at former values: rounds, 2s. 1d. to 2s. 2d.; ovals, 1s. 9d. to 1s. 11d. per lb., ex store, as to quality.

BURDOCK.—Spot supplies are quoted rather easier this week at about 45s. per cwt., ex store.

CAMPHOR.—Good business at full prices: Japanese manufacturing BB grade, £8 10s. per 100 lb. Japanese, spot, tablets, 2s. 7½d.;

powder, 2s. 4d.; slabs, 2s. 3½d. per lb., ex store; shipment, tablets, 2s. 3½d.; powder, 2s. 1d.; slabs, 2s. 0½d. per lb., c.i.f.; English refined flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots, 3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz., and 16 oz. 3s. 4d.; 1 oz. and 2 oz., 3s. 5d.; ½ oz., ¾ oz., and 1 oz., 3s. 6d. per lb.

CANTHARIDES.—Occasional small spot business: spot, Chinese, 2s. 3d. to 2s. 4d. per lb., as to quantity; shipment, 1s. 8½d. per lb., c.i.f.

CARDAMOMS.—After going down to as low as 2s. 6d., c.i.f., green Aleppy recovered sharply, with business done this week at 2s. 10d., c.i.f., and in another direction 3s. 3d., c.i.f., is wanted. Bombay seed is also quoted dearer at 4s. 1d. per lb., c.i.f.

CASCARA SAGRADA.—Little inquiry, quoted unchanged: 1937 peel, 48s. per cwt., c.i.f., with spot holders asking 58s. to 60s. per cwt.; old bark, from 65s. to 70s. per cwt., ex store.

CASCARILLA.—Market dull, with dealers quoting at 1s. 3d. per lb., spot.

CASSIA FISTULA.—Dealers value fairly sound good bold pods at about 30s. per cwt., ex store.

CELERY SEEDS.—Good bulk quantities quoted on spot at about 85s. per cwt., ex store.

CHAMOMILES.—New crop, first picking, Belgian flowers are quoted at 170s. per cwt. landed and duty paid.

CLOVES.—The Madagascar product is quoted cheaper, market quiet: Zanzibar, spot, 8½d.; shipment, November-December, 7½d. per lb., c.i.f. Madagascar, in bond, 7½d.; shipment, November-December, 6½d. per lb., c.i.f.

The landings of Zanzibar in London during the week ended November 13 were *nil* and the deliveries 32, leaving a stock of 1,598. From January 1 to date the landings of Zanzibar have been 5,953 and the deliveries 4,755. Landings of Madagascar for the week ended November 13 were *nil*, and the deliveries 85, leaving a stock of 3,204. From January 1 to date the landings of Madagascar have been 5,268 and the deliveries 3,234 packages.

COCONUT (DESICCATED).—Market is steady at the better prices: spot, fine, 21s.; medium, 20s. per cwt.; shipment, halves, November-December, 19s.; January, 19s. 3d. per cwt., c.i.f.

COD-LIVER OIL.—Bergen reports the shipment market continues dull: finest Lofoten steam refined non-freezing medicinal oil, 103s. to 105s. per barrel, c.i.f., London. Small lots on spot, about 142s. 6d. per barrel, ex store, duty paid. British finest medicinal oil is quoted at 110s. per barrel, delivered U.K., with rebates for 25, 50 or more barrels.

COLCHICUM.—Spot supplies of root at about 47s. 6d. per cwt. and seeds at 10d. per lb., ex store.

DIGITALIS LEAVES.—Dealers are offering small parcels on spot at about 95s. per cwt., ex store.

ERGOT.—Except for some inquiry for Russian to come forward the market remains dull. No shipment offers of Russian. On spot, Spanish/Portuguese quoted at about 5s. 4½d. to 5s. 6d. per lb., in bags.

GENTIAN.—Dealers' prices range from 45s. to 50s. per cwt., as to quality and quantity, ex store.

GINGER.—West African, on spot, 57s.; for arrival, January-March, 45s., c.i.f. Jamaican, small grinding, in bags, 62s. 6d.; bold, in barrels, 82s. 6d. to 87s. 6d. per cwt., ex store.

GUM ACACIA.—Values continue to recede with business quiet: Kordofan, cleaned sorts, spot, 47s.; shipment, 45s. per cwt., c.i.f.

HONEY.—Not much business moving, but values are fully steady. Further limited supplies of Canadian and Californian have been landed: Jamaican, dark liquid manufacturing, 40s. up to 55s. for pale set. Californian white clover at 52s. per cwt., duty paid. Canadian, new crop, in limited supply and held for 57s. 6d. to 60s. Some dark St. Domingo is now available at 37s. per cwt., duty paid. A parcel of Haiti, dark to medium, landed this week and offered at 37s. per cwt., duty paid.

HYDRASTIS.—The shipment market is reported to be firm at 15s. per lb., c.i.f. Meanwhile there has been a spot seller at about 14s. 4½d., but the values now mentioned are 14s. 6d. up to 15s. per lb., as to seller. A fair spot business is reported.

IPECACUANHA.—Market is fully steady on spot and firm forward: Matto Grosso, B.P., spot, 8s. 3d. to 8s. 4½d.; shipment, firm at 8s. per lb., c.i.f.

MENTHOL.—A steady demand continues for the Japanese product on spot, with full prices paid. K/S brands, spot, 13s. 10½d. to 14s.; in bond, 12s. 3d. To arrive shortly, 13s. 6d., duty paid. Japanese shippers' quotations are dearer, with November-December, 11s.; January-March, 10s. 9d. per lb., c.i.f.

MERCURY.—Values for Spanish/Italian metal are steady, business rather quiet. London stocks available: quoted at 64 dollars per bottle, f.o.b. Continent: spot, £12 17s. to £12 17s. 6d. per bottle, ex store.

MYRRH.—Small supplies at full prices: Fair Aden, native gum, £9 10s. per cwt., in bond, and good small peas, £4 7s. 6d. per cwt., in bond.

ORRIS ROOT.—Some stocks of good bold selected at about 30s. per cwt. Other grades from 27s. per cwt., ex store.

PEPPER.—Values continue unsteady, market quiet: Lampong, in bond, 2½d.; shipment, November-December, 2½d.; January-March, 2½d.; March-May, 2½d., c.i.f. Tellicherry, spot, 4d.; shipment, January-March, 32s. 6d., c.i.f. Aleppy, spot, 4d.; shipment, January-March, 32s. 6d., c.i.f. White Muntok, in bond, 4d.; shipment, November-December, 3½d.; January-March, 3½d., c.i.f. London Terminal Market: Black, December, 2½d.; March, 2½d.; May, 2½d. White, December, 3½d.; March, 3½d.; May, 4d. per lb.

PIMENTO.—Market is steady but quiet: spot, 8½d. per lb.; shipment, December-January, 68s. 6d. per cwt., c.i.f.

RHUBARB.—More inquiry on spot, with the small supplies firmly held. There appears to be some doubt whether the parcel of rough round, which was due here early next month, has actually been shipped. It is understood that shippers state goods were put on board. The doubt which has now arisen as to the shipment of this parcel has made the spot market firmer. Shensi, spot, 5s. to 6s. per lb., as to condition.

RUBBER.—Moderate business, with values about level on the week: standard ribbed smoked sheet, spot, 7d.; December, 7d.; January-March, 7½d.; April-June, 7½d.; July-September, 7½d. per lb.

SAFFRON.—Small sales continue, with genuine Valencia on spot steady at 74s. to 76s. per lb.

SEEDS.—**ANISE.**—Spot, duty paid, Spanish, 57s. 6d.; Persian, 40s. **CANARY.**—Market dull, very little business passing. Spot prices duty paid: Mazagan, 19s. 6d.; Turkish, 17s.; Plate, 19s.; Spanish according to quality, 25s. to 37s. 6d. **CARAWAY.**—Dutch, 35s. 6d., spot, duty paid; 29s. 6d., f.o.b. Holland. **CORIANDER.**—Morocco is 26s., spot, duty paid, and 24s. 6d., in bond. **CUMIN.**—Spot, Malta, 46s., duty free; Morocco, 45s., duty paid. **DILL.**—Indian offered at 22s. 6d., spot. **FENUGREEK.**—Morocco is 13s. 6d., spot, duty paid, and 12s. 3d. in bond. **MUSTARD.**—English is 20s. to 31s., according to quality.

SENEGA.—Market is steady, moderate business: spot, 2s. 2d. to 2s. 3d., as to quantity; shipment, new crop, 2s. 2d. per lb., c.i.f.

SLIPPERY ELM BARK.—Dealers are quoting grinding quality at 6½d.; clippings at 8½d.; selected loose slabs at 1s. 2d.; 5-lb. wired bundles of selected quality, 1s. 9d. per lb., ex store.

TONKA BEANS.—Spot supplies of fair frosted Para beans are quoted at about 3s. 6d. per lb., ex store.

TRAGACANTH.—Some business continues in the medium white gums, which are valued at £30 to £50 per cwt. In other qualities conditions are quiet but steady.

WAXES.—**BEES'.**—Values show little change on the week, business quiet. Calcutta, bleached, spot, 140s.; shipment, November-December, 135s.; ordinary quality, spot, 115s.; shipment, November-December, 112s. 6d., c.i.f. Benguella, spot, 112s. 6d.; shipment, November-December, 107s. 6d., c.i.f. Conakry, spot, 112s. 6d.; shipment, 107s., c.i.f. Dar-es-Salaam, spot 122s. 6d.; shipment, November-December, 117s. per cwt., c.i.f. **CARNAUBA.**—Market quiet. Fatty grey, spot, 172s. 6d.; shipment, afloat, 165s., c.i.f.; November-December, new crop, 152s. 6d., c.i.f. Chalky grey, spot, 170s.; shipment, 150s., c.i.f. Primeira, spot, good quality, 220s.; f.a.q., 212s. 6d.; shipment, November-December, 190s., c.i.f. Mediana, spot, 200s.; shipment, 182s. 6d., c.i.f.

Essential Oils, etc.

MOST of the products in this market have experienced a quiet demand this week. Sicilian oils remain mostly neglected. Japanese peppermint oil meets with a brisk demand at full prices.

ALMOND.—Business remains quiet: foreign, expressed, cwt. lots, 2s. 8d.; smaller parcels, up to 3s. per lb.; English oil at competitive prices.

ANISE (STAR).—Some spot business reported this week, with tins in cases at 5s. 6d. and any drums available would be worth up to 5s. 3d. per lb. During the past few days there have been no shipment offers.

BERGAMOT.—This market has been quite neglected this week. Shipment quotations are nominal at 15s. 4½d., c.i.f. Spot values range from 15s. 3d. to 15s. 9d. per lb., ex store.

BOIS DE ROSE.—A small spot business. Drums, 6s. 1d.; smaller packings, up to 6s. 4½d. per lb. No reliable shipment offers from the source.

CAJUPUT.—Market quoted easier. B.P., 2s. 6d. to 2s. 9d. per lb., as to quantity; shipment, 2s. 2d. per lb., c.i.f.

CANANGA.—There are spot sellers at about 6s. to 6s. 2d. per lb., as to quantity. Market dull.

CARAWAY.—Only small spot business recorded: Dutch rectified, 7s. 9d.; crude, 7s. 4d. per lb., landed, duty paid.

CASSIA.—A limited spot business with leads fully steady at 3s. 7½d. to 3s. 9d. per lb., ex store. A shipment offer indicates a price of 3s. 5½d. per lb., c.i.f.

CEDARWOOD.—For large bulk quantities some quotations are easier on spot: African, in drums, 1s.; smaller packages, up to 1s. 3d. per lb. American, in drums, 11½d.; smaller packages, up to 1s. 3d. per lb., ex store.

CINNAMON LEAF OIL.—Shipment quotations for Ceylon are again slightly easier at about 2s. 7½d. per lb., c.i.f., in drums.

CITRONELLA.—The Java oil is quoted easier on a dull market. Ceylon, spot, drums, 1s. 9½d.; smaller parcels, up to 2s.; shipment, drums, 1s. 5½d. per lb., c.i.f. Java, spot, drums, 2s. 2d. to 2s. 3d.; smaller parcels, up to 2s. 7d.; shipment, drums, 1s. 9½d. per lb., c.i.f.

CLOVE.—Madagascar oil is being quoted at keen prices: in drums, 2s. 10d. per lb., c.i.f.

EUCALYPTUS.—Shipment prices are keeping steady but, with more supplies available, spot values are rather easier: Australian, 70 to 75 per cent., 1s. 7½d. to 1s. 8½d., in drums; 1s. 8½d., in tins; 80 to 85 per cent., 1s. 10½d. per lb., in drums, if available; higher prices for small lots on spot. Shipment, 70 to 75 per cent., 1s. 5½d., in drums; 1s. 6½d. in tins; 80 to 85 per cent., 1s. 7½d. per lb., c.i.f., for December shipment.

GERANIUM.—This market fails to attract much inquiry. Bourbon is easier for shipment: Bourbon, spot, 14s. 6d. to 15s.; shipment, 13s. 4½d. per lb., c.i.f. Algerian, spot, 14s. 9d. to 15s.; shipment, nominal.

GINGERGRASS.—Nothing available on spot; shipment, about 7s. 9d. per lb., c.i.f.

GRAPE-FRUIT.—Spot business quiet, market steady: Florida oil, 10s. 6d. to 11s. 6d. per lb. Californian, 10s. 6d. to 12s. per lb., as to quantity.

HO (SHIU).—Spot demand small, but prices asked for "improved" 85 per cent. oil are steady at 3s. 11d. for drums and up to 4s. 4½d. for smaller packages. Only "extra" quality quoted for shipment at about 3s. 10d., c.i.f.

JUNIPER BERRY.—Spot values vary according to quality of the oil from about 3s. 3d. to 4s. per lb. for the finest.

LAVERNER.—Market remains dull with new crop French 38 to 40 per cent. oil steady at 16s. to 16s. 6d. per lb. landed. Lavandin of good quality is steady at 8s. 3d. to 9s. per lb. landed.

LEMON.—The source reports shipment quotations for Sicilian new crop hand-pressed oil are fully steady at 10s. to 10s. 7½d., c.i.f., at which figures no interest is shown in this market. One offer well below 10s., c.i.f., is noted with no business recorded. Californian distilled, regular quality, 6s. 4d. per lb., ex wharf, with fair business reported.

LEMONGRASS.—Market is neglected: shipment, 1s. 5½d., c.i.f.; spot, 1s. 8d. to 1s. 10d. per lb., as to quantity.

MANDARIN.—Shipment quotations for new crop oil are rather easier again, being in the region of 18s. 9d. to 19s. 9d. per lb., c.i.f.

NEROLI.—Market has been very quiet: perfumers' quality, 27s. 6d. to 30s. per oz.; other grades range from 18s. to 24s. per oz., ex store.

NUJMEG.—Market is steady, with some small business reported: spot, American and Dutch oil, 5s. 7½d. to 6s. per lb., as to quantity.

ORANGE.—One or two offers of a speculative character for French Guinea oil from 3s. 6d. to 3s. 9d., c.i.f., have been received. These apparently refer to oil made from unripe fruit. One offer, January shipment, of main new crop oil received in London on Wednesday at 4s. per lb., c.i.f. Tanganyika bitter oil, in drums, 8s. per lb., ex store. Californian, small drums, 4s. 2½d.; tins in cases, 4s. 3½d.; single cases, 4s. 6d. per lb., ex store. Californian, hand-pressed, 5s. 6d. to 5s. 9d., duty paid; shipment, 5s. 1d. per lb., c.i.f., in bulk quantity.

PALMAROSA.—Spot supplies are difficult to locate and would be about 8s. 4½d. per lb. Shipment is dull, with the price asked about 6s. 7½d., c.i.f.

PEPPERMINT.—The Japanese oil is in brisk demand on spot and is firm as quoted at 5s. 1d. per lb. Some near afloat oil at about 4s. 9d., c.i.f. Resellers of October shipment at 4s. 6d., c.i.f. Japanese shippers quote November-December, 4s. 6d.; December-January, 4s. 5d., and January-March at 4s. 4d. per lb., c.i.f. Business done earlier at 4s. 1d., c.i.f., for January-March shipment. The American natural oil, in drums, remains dull, with quotations for this season's oil ranging from 2 dollars 10 cents to 25 cents per lb., c.i.f.

PETITGRAIN.—Occasional inquiry, market steady: cases, 4s. 3d.; smaller packings, up to 4s. 6d.; shipment, 4s. per lb., c.i.f.

ROSEMARY.—A modest spot sale reported, with holders of Spanish oil quoting from 3s. 3d. to 4s. per lb., as to quality and quantity.

SAFFOR.—Dealers report business remains slack with the value of small lots of Bourbon in the region of 24s. per lb., ex store.

SANDALWOOD.—Genuine East Indian Mysore, in one-case lots on spot, 10s. per lb. Oil described as East Indian is steady at the recent slight advance at 17s. 6d. per lb., c.i.f., for bulk quantities: English-made East Indian, 22s. 6d. to 25s. per lb., as to quantity. English-made West Indian, 7s. 3d. per lb. Australian, steady at 15s. 3d. per lb., for 7-lb. tins; one case at 14s. 9d. and five cases at 14s. 6d. per lb.

SPEARMINT.—Competition has brought the spot quotation down to 8s. 4½d. to 8s. 6d. per lb. for good quantities; shipment, about 8s. per lb., c.i.f.

SPIKE.—A limited business, with genuine Spanish of good quality offered at 5s. 6d. per lb., ex store.

WORMSEED.—Business of small importance: U.S.P. oil, spot, 11s. 4d. to 11s. 6d.; shipment, 10s. 7½d. per lb., c.i.f.

Drug Tariff

The following are the items in Part IV of the National Health Insurance Drug Tariff, referred to in a previous issue. The official text includes prices.

Part IV A

LIST OF CERTAIN DRUGS AND PREPARATIONS WHICH ARE NOT REQUIRED TO BE KEPT IN STOCK

Drug or Preparation	Drug or Preparation
Acet. Cantharidin. B.P.C.	Elixir Saccharini B.P.C.
Acet. Ipecac. B.P.C.	Elixir Viburni B.P.C.
Acid. Acetic Dil. B.P.	Elixir Viburni et Hydrast. B.P.C.
Acid. Acetic Glac. B.P.	Emuls. Chloroformi B.P.C.
Acid. Benzoic. B.P. (synthetic)	Emuls. Menth. Pip. B.P.C.
Acid. Hydrochloric. B.P.	Ephedrina B.P.C.
Acid. Oleic. B.P.	Ext. Colchici Acet. B.P.C.
Æthylmorph. Hydrochlor. B.P.C.	Ext. Euphorb. Liq. B.P.C.
Aq. Laurocerasi B.P.C.	Ext. Hamamel. B.P.C.
Aq. Menth. Vir. Conc. B.P.C.	Ext. Malt. c. Syr. Ferri Phos. Co. B.P.
Aq. Menth. Vir. (ex conc.)*	Syr. Ferri Phosph. Co. B.P.
Bals. Peru. B.P.	1 oz. (by weight)
Bals. Tolu. B.P.	Ext. Malt. B.P. ad 4 oz. (by weight)
Benedict's Solution (Qualitative)	Ext. Malt. c. Ol. Hippoglossi.
Benzamina (alkaloid)	Ol. Hippoglossi (30,000 units vitamin A per gramme) m. 4.
Benzamin. Hydrochlor. B.P.C.	Ext. Malt. B.P. ad. 4 oz. (by weight)
Benzocain. B.P.	Ext. Rhei Liq. B.P.C.
Benzoin. B.P.	Ext. Scillæ Liq. B.P.C.
Betanaphthol. B.P.	Ext. Taraxaci Liq. B.P.C.
Bismuth. Oxid. B.P.C.	Ext. Thyroid. Liq. B.P.C.
Bismuth. Subgallas B.P.C.	Ext. Viburn. Liq. B.P.C.
Boroglycerin. B.P.C.	Ferri Subchlor. Cit. B.P.
Calc. et Sod. Lact. B.P.C.	Glycer. Aluminis B.P.
Calc. Hypophosphis B.P.C.	Glycer. Diamorph. B.P.C.
Calc. Phosphas B.P.	Glycer. Ichthammol. B.P.C.
Calc. Chlorinata B.P.	Guttæ Cocain. c. Oleo. N.F.
Calc. Sulphurata B.P.C.	Homatropin. Hydrobrom. B.P.
Caps. Bland. gr. 10 et Arsen. gr. 1/50	Hydrarg. Oleatum B.P.
Pil. Ferri. Carb. B.P. gr. 10	Hyoscin. Hydrobrom. B.P.
Arsenic. Trioxid. B.P. gr. 1/50 in each capsule	Inf. Cascarillæ Conc. B.P.C.
Caps. Filicis m. 15	Inf. Cascarillæ (ex conc.)†
Ext. Filicis B.P. m. 15 in each capsule	Inf. Uvæ Ursi Conc. B.P.C.
Caps. Ergotæ Præp. gr. 5	Inf. Uvæ Ursi (ex conc.)†
Ergot. Præp. B.P. gr. 5 in each capsule	Inj. Mersalyl. B.P. (ampoules of 1 c.c.)
Caps. Ol. Hippoglossi m. 3	Ipecacuanha Pulv. B.P.
Ol. Hippoglossi (30,000 units Vitamin A per gramme) m. 3 in each capsule	Jalapæ Resina B.P.C.
Carbo B.P.C.	Linct. Diamorph. Camph. B.P.C.
Catechu Pulv. B.P.	Lin. Calc. Hydrox. B.P.C.
Charta Sinapis	Lin. Capsici Co. B.P.C. '23 (Meth.)
Chloralformamid. B.P.C.	Lin. Pot. Iodid. B.P.C. (Meth.)
Chrysarobin. B.P.	Liq. Acraflav. B.P.C.
Cinchophen.	Liq. Alumin. Acet. B.P.C.
Conf. Guaiaci Co. B.P.C.	Liq. Ammon. Cit. Dil. B.P.C.
Conf. Piperis B.P.C.	Liq. Arseni Acidus B.P.C.
Cremor Zinci B.P.C.	Liq. Azorub. B.P.C. (Liq. Ruber.)
Dec. Hæmatoxyli Conc.	Liq. Bromidi Co. B.P.C.
Dec. Hæmatoxyli (ex conc.)†	Liq. Calciferolis B.P.
Dec. Senegæ Conc.	Liq. Cantharidin. B.P.C.
Dec. Senegæ (ex conc.)†	Liq. Copaiba Buchu et Cubeb. B.P.C.
Elixir Aletridis B.P.C.	

* Where the term "ex Conc." appears in this Tariff after the title of a medicated water it indicates a medicated water prepared by diluting the concentrated medicated water with 39 times its volume of water.

† Where the term "ex Conc." appears in this Tariff after the title of a decoction it indicates a decoction prepared by diluting the concentrated decoction with 7 times its volume of water, except that in the case of Dec. Aloes Co. the term "ex Conc." indicates a decoction prepared by diluting the concentrated decoction with three times its volume of water.

‡ Where the term "ex Conc." appears in this Tariff after the title of an infusion it indicates an infusion prepared by diluting the concentrated infusion with 7 times its volume of water.

Drug or Preparation

Liq. Ferri. Dialsat. B.P.C.
 Liq. Iodi Aquos. B.P.
 Liq. Opii Sed. B.P.C.
 Liq. Pancreatin. B.P.C.
 Liq. Saponis Æther. B.P.C. (Meth.)
 Liq. Sodii Phenatis Co. B.P.C.
 Liq. Thymolis Co. B.P.C.
 Mag. Phosph. Tribasic. B.P.C.
 Mag. Sulph. Exsic. B.P.C.
 Mel Boracis B.P.
 Mist. Bism. Co. c. Pepsin. B.P.C.
 Morphinae Acetas B.P.C.
 Morphinae Sulphas B.P.C.
 Oleoresin. Capsici B.P.C.
 Ol. Amygdal. Amar. sine Ac. Hydrocyan. B.P.C.
 Ol. Betulae B.P.C.
 Ol. Camphoræ Rect. B.P.C.
 Ol. Cassia B.P.C.
 Ol. Coccois B.P.C.
 Ol. Hippoglossi (30,000 units Vitamin A per gramme.)
 Ol. Lavand. 30% esters.
 Ol. Pini Pumilion. B.P.C.
 Ol. Rapæ B.P.C.
 Ol. Sinapis Volatile B.P.C.
 Orthocain. B.P.
 Oxymel B.P.
 Pasta Bism. et Iodoform. B.P.C. ("B.I.P.P.")
 Physostigmin. Salicyl. B.P.
 Pil. Aloin. et Podoph. Co. B.P.C.
 Pil. Colch. et Hydrarg. B.P.C.
 Pil. Col. et Hyos. gr. 4
 Pil. Coloc. et Hyoscy. B.P. gr. 4 in each
 Pil. Quin. Sulph. gr. 1
 Quin. Sulph. B.P. gr. 1 in each
 Pil. Quin. Sulph. gr. 2
 Quin. Sulph. B.P. gr. 2 in each
 Pil. Rhei Co. gr. 4
 Pil. Rhei. Co. B.P. gr. 4 in each
 Pil. Zinc. Oxid. et Bellad. B.P.C.
 Plumbi Acetas B.P.
 Potass. Hydroxyquinolin. Sulph. B.P.C.
 Potass. Sulphurat. B.P.
 Potass. Tartras B.P.C.
 Procain. Hydrochlor. B.P.
 Pulv. Catechu Co. B.P.C.
 Pulv. Scammon. Co. B.P.C.
 Pulv. Vitamini B.1 B.P.
 Quininae Hydrobrom. B.P.C.
 Sol. Æther. Nit. Conc. (1 to 7)
 Spirit. Ammon. Fetid. B.P.C.
 Spirit. Anisi B.P.C.
 Spirit. Antisepticus (Surgical Spirit)
 Spirit. Cinnamomi B.P.C.
 Spirit. Juniper. B.P.C.
 Spirit. Rosmarini B.P.C.
 Spirit. Saponatus B.P.C. (Meth.)
 Spirit. Sapon. Kalini B.P.C. (Meth.)

Drug or Preparation

Stramonium B.P. (Pulv.)
 Succus Allii B.P.C.
 Succus Bellad. B.P. '98
 Succus Conii B.P.C.
 Succus Limonis B.P.C.
 Succus Scoparii. B.P.C.
 Succus Taraxaci B.P.C.
 Suppos. Adrenalin. B.P.C.
 Suppos. Bism. Subgall. Co. B.P.C.
 Suppos. Hamamel. Ext. Hamamel. B.P.C. gr. 2 in each.
 Syr. Aromat. B.P.C.
 Syr. Calcii Chloridi B.P.C.
 Syr. Ficorum Co. B.P.C.
 Syr. Glycerophos. c. Format. B.P.C.
 Syr. Glycerophos. Flav. B.P.C.
 Syr. Picis Liq. B.P.C.
 Syr. Triplex B.P.C.
 Tab. Acetanilid. Co. c. Codein. B.P.C.
 Tab. Allobarbiton. gr. 1½
 Allobarbiton. B.P.C. gr. 1½ in each tablet
 Tab. Amidopyrin. gr. 5
 Amidopyrin. B.P. gr. 5 in each tablet
 Tab. Barbiton. et. Amidopyrin. B.P.C.
 Tab. Barbitou. Solub. gr. 5
 Barbiton. Solub. B.P. gr. 5 in each tablet
 Tab. Calc. Sodii Lact. grs. 7½
 Calc. et Sod. Lact. B.P.C. grs. 7½ in each tablet
 Tab. Calc. Sulphid. gr. Calx. Sulphurat. B.P.C. gr. ½ in each tablet
 Tab. Digitalis Pulv. gr. 1
 Digital. Pulverat. B.P. gr. 1 in each tablet.
 Tab. Ephedrin. Hyd. gr. ¼
 Ephedrin. Hydrochlor. B.P. gr. ¼ in each tablet.
 Tab. Ferri. Sulph. gr. 3
 Ferri. Sulph. Exsic. B.P. gr. 3 in each tablet.
 Tab. Hyoscin. Hydrobrom. gr. 1/100
 Hyoscin. Hydrobrom. B.P. gr. 1/100 in each tablet
 Tab. Methylsulphonal. gr. 5
 Methylsulphonal. B.P. gr. 5 in each tablet.
 Tab. Mixed Gland (Male)
 Pituitary (whole) gr. 1/20
 Suprarenal gr. 1/20
 Didymin gr. 1/20
 Thymus gr. 1/20
 Thyroid gr. 1/20 in each tablet.
 Tab. Mixed Gland (Female)
 Mammary gr. 1/20
 Ovarian gr. 1/20
 Pituitary (whole) gr. 1/20
 Suprarenal gr. 1/20
 Thymus gr. 1/20
 Thyroid gr. 1/20 in each tablet.

Part IV A—cont.

Drug or Preparation
Tab. Papavereti gr. 1/6 <i>Papaveretum B.P.C.</i> gr. 1/6 in each tablet
Tab. Parathyroid. gr. 1/10 <i>Parathyroid B.P.C.</i> gr. 1/10 in each tablet
Tab. Phenobarbiton. gr. 1½ <i>Phenobarbiton B.P.</i> gr. 1½ in each tablet
Tab. Phenobarbiton. gr. 2 <i>Phenobarbiton B.P.</i> gr. 2 in each tablet
Tab. Phenobarbiton. gr. 5 <i>Phenobarbiton B.P.</i> gr. 5 in each tablet
Tab. Phenobarb. Solub. gr. ¼ <i>Phenobarbiton. Solub. B.P.</i> gr. ¼ in each tablet.
Tab. Phenobarb. Solub. gr. 1½ <i>Phenobarbiton. Solub. B.P.</i> gr. 1½ in each tablet.
Tab. Phenobarb. Solub. gr. 2 <i>Phenobarbiton. Solub. B.P.</i> gr. 2 in each tablet.
Tab. Phenobarb. et Theobromin. B.P.C.
Tab. Phenolphthalein. gr. 3 <i>Phenolphthalein. B.P.</i> gr. 3 in each tablet (chocolate base)
Tab. Phenolphthalein. gr. 4 <i>Phenolphthalein. B.P.</i> gr. 4 in each tablet (chocolate base)
Tab. Phenolphthalein. gr. 5 <i>Phenolphthalein. B.P.</i> gr. 5 in each tablet (chocolate base)
Tab. Phenolphthalein. Co. B.P.C.
Tab. Pot. Permang. gr. 1 <i>Pot. Permang. B.P.</i> gr. 1 in each tablet
Tab. Pulv. Ipecac. et Opii gr. 5 <i>Pulv. Ipecac. et Opii B.P.</i> gr. 5 in each tablet
Tab. Quininæ Sulph. gr. 1 <i>Quininæ Sulph. B.P.</i> gr. 1 in each tablet
Tab. Quininæ Sulph. gr. 2 <i>Quininæ Sulph. B.P.</i> gr. 2 in each tablet

Drug or Preparation
Tab. Quininæ Sulph. gr. 3 <i>Quininæ Sulph. gr. 3 in each tablet</i>
Tab. Quininæ Sulph. gr. 5 <i>Quininæ Sulph. B.P.</i> gr. 5 in each tablet
Tab. Salicin. gr. 5 <i>Salicin B.P.</i> gr. 5 in each tablet
Tab. Thyroid. gr. 3 <i>Thyroidum B.P.</i> gr. 3 in each tablet
Tab. Thyroid. gr. 5 <i>Thyroidum B.P.</i> gr. 5 in each tablet
Tab. Yeast gr. 5 <i>Cerevis. Ferment. Sicc.</i> gr. 5 in each tablet
Terebentum B.P.
Tinct. Aconiti B.P.C.
Tinct. Aloes B.P.C.
Tinct. Arnica Flor. B.P.C.
Tinct. Asafœtidæ B.P.
Tinct. Benzoin. B.P.C.
Tinct. Bryonia B.P.C.
Tinct. Cannabis B.P.C.
Tinct. Cimicifugæ B.P.C.
Tinct. Cocci B.P.
Tinct. Convallariæ B.P.C.
Tinct. Euonymi B.P.C.
Tinct. Jaborandi B.P.C.
Tinct. Krameria B.P.
Tinct. Pulsatillæ B.P.C.
Tinct. Quininæ B.P.C.
Tinct. Sennæ Co. B.P.C.
Tinct. Tolu. B.P.
Ung. Adrenalin. B.P.C.
Ung. Aq. Rosæ B.P.C.
Ung. Capsici Co. B.P.C.
Ung. Capsici Fort. B.P.C.
Ung. Plumbi Acet. B.P.C.
Ung. Plumbi Iod. B.P.C.
Ung. Simplex B.P. (Alb.)
Ung. Simplex B.P. (Flav.)
Vin. Aloes B.P.C.
Vin. Colchici Sem. B.P.C.
Vin. Pepsin. B.P.C.
Viola Crystallina B.P.C.
Virid. Nitens B.P.C.
Zinc. Carb. B.P.C.
Zinc. Chlorid. B.P.
Zinc. Oleostearas B.P.C.
Zinc. Permanganas B.P.C.

Part IV B

LIST OF APPLIANCES WHICH ARE NOT REQUIRED TO BE KEPT IN STOCK

Appliance	Size or Weight
BANDAGES :	
Calico, Domette, Flannel and Muslin Bandages are to be supplied completely wrapped, as received from the manufacturer or wholesaler	
Calico, bleached, B.P.C. ...	2 in. × 4 yd. 2½ in. × 4 yd. 3 in. × 4 yd.
Calico, unbleached, B.P.C. ...	2 in. × 4 yd. 2½ in. × 4 yd. 3 in. × 4 yd.
Domette, B.P.C. ...	2½ in. × 6 yd. 3 in. × 6 yd.
Flannel B.P.C. (Pale Blue) ...	2½ in. × 4 yd. 3 in. × 6 yd.
India Rubber ...	2½ in. × 1 yd. 2½ in. × 2½ yd.
Muslin, B.P.C. ...	2½ in. × 6 yd. 3 in. × 6 yd. 4 in. × 6 yd.

Appliance	Size or Weight
BORIC ACID WOOL, B.P.C. :	
Boric Acid Wool is to be supplied as received from the manufacturer or wholesaler, packed as recommended by the B.P.C.	1 oz. 2 oz. 4 oz.
CATHETERS, URETHRAL :	
Soft Rubber ...	1—12
Soft Rubber ...	13
Soft Rubber ...	14
GAUZES :	
The gauzes included in this list are to be supplied in a sterile condition as received from the manufacturer or wholesaler, packed as recommended by the B.P.C.	
Boric Acid Gauze, B.P.C. ...	1 of 1 sq. yd. 1 of 1 sq. yd. 1 of 1 sq. yd.
Iodoform Gauze, B.P.C. ...	1 of 1 sq. yd. 1 of 1 sq. yd.
Trinitrophenol Gauze, B.P.C. ...	1 of 1 sq. yd. 1 of 1 sq. yd.
ICE BAGS :	
Check, circular shape ...	8 in. diam.
PESSARIES, RING	
PROTECTIVE :	
Oiled Paper, B.P.C. ...	per sq. ft.
SPHAGNUM MOSS	
SPINAL JACKETS :	
The spinal jackets forming part of medical benefit are those required for treatment of fractures, dislocations or diseases of the spine.	
SPLINTS :	
The splints forming part of medical benefit are Rigid Splints, INCLUDING Gooch Splinting and Poroplastic, but EXCLUDING Walking Caliper Splints, Surgical Boots and Foot Supports worn with boots or shoes.	
STANDARD DRESSING NO. 1 :	
Standard dressing No. 1 is to be supplied in a sterile condition and in sealed packets as received from the manufacturer or wholesaler. The directions for use must be clearly shown.	
Mercury & zinc cyanide gauze, B.P.C.	36 in. × 12 in.
Absorbent cotton-wool, B.P.C. ...	180 grains.
White open wove bandage, B.P.C. ...	1 in. × 3 yd.
Directions for use.	
In the absence of any special directions by the doctor, the dressing should be used as follows :	
(1) cleanse the wound with plain boiled water or antiseptic solution ;	
(2) apply the gauze so as to cover the wound ;	
(3) apply the cotton wool so as to cover and overlap the gauze, and	
(4) apply the bandage.	
TAMPONS	
TOWS :	
Phenol Tow, B.P.C. ...	8 oz. 1 lb.
Tow (Unmedicated), B.P.C. ...	8 oz. 1 lb.

Correspondence

Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor

Putting Pharmacy "On the Map"

SIR,—Mr. Yeomans asks, "Is it policy for individuals to advertise collectively?" His answer is "No." As the person who three years ago brought forward a resolution at the British Pharmaceutical Conference for propaganda for the qualification and repeated it in one form or another each year till this year it resulted in a P.R.O. being appointed, I would like to say a few words on the subject. Clearly, extensive newspaper advertising is impossible, but there are many other ways of doing it. First of all, we must make up our minds as to what the line of propaganda is to be. Unhesitatingly my answer is, "Propaganda for the qualification," not for the individual, or even the private chemist as distinct from company chemists. There would be a good living for all of us if we could get the sale of anything like all the medicines being confined to chemists and druggists. Our aim should be to educate the public, in season and out of season, as to the value of our qualification, and how, and why, we are the proper, indeed the only, people who should be allowed to supply medicine. This might help company chemists, you say. Well, their extensive advertising helps us. I find often that the public reaction to it is that "chemists' " (i.e., pharmacists') medicines are assumed to be of best quality, tested and standardised, etc., and all this newspaper and radio advertising is regarded as emphasising the fact that medicines supplied by company shops is of the same good quality as supplied by chemists (i.e., pharmacists). Indeed, the fact that the large companies find this expensive advertising necessary is in itself very significant. How effective advertising can be, done by chemists in an inexpensive manner, I will reserve for another letter, as I have already trespassed sufficiently on your space and the subject is a very big one.

Yours faithfully,

WALTER R. BRACKENBURY.

Middlesbrough.

Negotiation on N.H.I. Terms

SIR,—I have just read a report of Mr. Mallinson's speech at Bradford and feel that it is necessary for me to make my attitude perfectly clear. As Mr. Mallinson rightly says, I have ever since 1911 been closely associated with National Health Insurance matters, and it is this and this alone which has led me to take the attitude I have done. I appreciate all that the National Pharmaceutical Union have done for the chemist in National Health Insurance matters, and have no desire whatsoever and never have suggested that they should cease to negotiate. I do feel, however, that it is a mistake for each body to stay in its own watertight compartment when big issues are at stake. We ought to pool all our ideas and all our resources, and find out what is the best use we can make of our combined assets. I am sure that there are ways in which the prestige of the Pharmaceutical Society of Great Britain can be used to give added weight at this critical time, and I believe that chemists generally will appreciate this position.—Yours faithfully,

PHILIP F. ROWSELL.

Exmouth.

Ti-tree Oil

SIR,—In your issue of October 23, 1937 (p. 500), there is a reference to the preparation of antiseptics employing "Ti-tree" or "Tea-tree" oil (*Melaleuca alternifolia*). Perhaps I may assume that the references to its germicidal value are based on the original statements of A. R. Penfold and F. R. Morrison ("The Bulletin of the Technical Museum," Sydney, 1929, No. 14). In this pamphlet it is claimed that the oil has a carbolic acid coefficient (*B. typhosus*) of 11-13. I have examined various samples of this oil from different Australian sources during recent years, but have been unable to obtain one having a carbolic acid coefficient calculated on a 100 per cent. basis of more than 2. (Rideal-Walker standard technique at 17°-18° C., using the Lister Institute strain of *B. typhosus*). I have reason to know that other investigators

have obtained similar results. Purveyors of the oil in this country and Australia invariably shelter themselves behind the original claims of Penfold and Morrison. I should be interested to know if any bacteriologist has ever met with a sample of the oil that has more than one-sixth of the Rideal-Walker value originally claimed for it.—Yours faithfully,

WILLIAM C. REYNOLDS, D.Sc., F.I.C.

Hull.

P.A.T.A. Council Election

SIR,—Mr. C. J. Yeates has been unanimously adopted as a candidate for the retail section of the P.A.T.A. Council, and we recommend him for support by all members who wish retailers to be adequately represented there. His work on the C.F. movement and on the N.P.U. Executive entitles Mr. Yeates to the consideration of all who desire to see "Pharmacy for the Pharmacist" become something more than a slogan. He is the P.A.T.A. local secretary for this district, has had considerable experience of P.A.T.A. affairs, is solely engaged in retail pharmacy, and we earnestly advise members in their own interests to vote for Mr. Yeates.—Yours, etc.,

FERNLEY WALLIS, Chairman.

ALLEN L. GRIFFITHS, Secretary.

Plymouth Branch, P.A.T.A.

Charges for Containers

SIR,—“Manufacturer” tells us (*C. & D.*, November 13, p. 579) that on the Continent 20 per cent. or so is deducted from credits on returned empties as some contribution towards the cost of washing, etc., and that rising costs and overheads may bring a similar arrangement in this country. One can quite appreciate the idea of such a deduction, but are not the increased costs already charged for in the higher prices for the goods? Similarly, one would think that in a wholesale business, where working costs are all noted and carefully reckoned, the amount charged to cleaning returned empties would be added to the cost of the article, as would be the case in the washing and drying of new bottles for packed lines. The difficulty which faces the retail chemist, when small percentages of this kind are added to his wholesale prices, is that they cannot be reflected in the retail charges; and although no single item may be large enough to be considered separately, at the end of the year the total will make an appreciable difference to the ascertained percentage of profit. If the wholesaler can make out a good case for such deductions, the retailer could surely make out a better one, because he cannot cover his increased costs by advancing his prices in a corresponding ratio. The deposit payable on medicine bottles supplied to insurance customers is a glaring example of this loss to the retail chemist, and a fixed percentage should be allowed as a deduction from all returns.—Faithfully yours,

PROFIT OR LOSS (15/11).

Why not Discriminate?

SIR,—A customer, who happens to be a barrister as well as landowner, called in for strychnine to poison moles; the situation was explained to him, and to clinch matters he was shown the report of the prosecution of Mr. Godson. This was carefully read, and my customer remarked, "The Society should never have brought this case into Court." "And so say all of us," unfortunate children of a parent who is rapidly changing into the rôle of step-mother.—Yours,

MEMBER FOR NEARLY FORTY YEARS (16/11).

Dispensing Apomorphine

SIR,—Your "Retrospect of Fifty Years Ago," in the issue of November 6, is very interesting. In one large dispensing establishment I worked in many years ago it was the custom to acidify all bottles to be used in dispensing apomorphine. The bottles were, of course, thoroughly cleansed with water after being acidified.—I am, etc.,

FIFE (16/11).

Miscellaneous Inquiries

We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them

A. O. W. (15/11).—**COUGH MIXTURE.**—We have been unable to trace any formula which contains all the ingredients you mention, but possibly one of the following could be adapted to meet your requirements:—

Rad. ipecac. cont.	...	...	...	3ij.
Spt. ather. nitrosi	...	...	...	Cong. j
Chloroformi meth.	...	...	...	3xxxij
Camphoræ	...	...	...	3v.
Ol. anisi	...	...	...	3iij.
Rad. althaeæ	...	...	...	lb. ij.
Fol. tussilaginis	...	...	...	lb. j.
Marrubii	...	...	...	lb. ss.
Aquæ	...	...	...	Cong. iss.
Solazzi	...	...	...	lb. j.
Pulv. potass. nitratis	...	...	...	lb. ij. 3x.
Sacchari alb.	...	...	...	lb. xxiv.
Mellis	...	...	...	lb. xij.
Oxymel. scillæ	...	...	ad	Cong. vj.

Dose: A small teaspoonful in water three times daily. For a child ten years old, half the quantity.

II

Linseed, Liquorice and Aniseed Cough Balsam

Ext. ipecac. liq.	...	...	...	3ij.
Tr. camph. co.	...	...	...	3vj.
Tr. pruni Virg.	...	...	...	3j.
Theriaca	...	...	...	3viij.
Glycerini	...	...	...	3vj.
Ext. glycyrrhizæ liq.	...	...	...	3iv.
Acid. sulph. pur.	...	...	...	℥c
Inf. lini	...	...	ad	Oij.

III

Balsam of Horehound

Anise fruit	...	...	...	2 lb.
Benzoic acid	...	...	...	8 oz.
Capsicum fruit	...	...	...	2 oz.
Cochineal	...	...	...	½ lb.
Horehound	...	...	...	3 lb.
Senega root	...	...	...	2 lb.
Squill	...	...	...	1 lb.
Golden syrup	...	...	...	20 lb.
Virginian prune bark	...	...	...	2 lb.
Alcohol (90 per cent.)	...	...	...	1½ gall.
Spirit of chloroform	...	...	...	50 fl. oz.
Tincture of opium	...	...	...	42 fl. oz.
Distilled water, boiling	...	...	...	2½ gall.
Syrup of tolu, sufficient to make	...	...	...	8 gall.

IV

Balsam of Aniseed

Benzoic acid	...	...	...	30 gr.
Antimonial wine	...	...	...	4 fl. dr.
Ipecacuanha wine	...	...	...	6 fl. dr.
Liquid extract of liquorice	...	...	...	3 fl. oz.
Oil of anise	...	...	...	1 fl. dr.
Tincture of squill	...	...	...	4 fl. oz.
Alcohol (90 per cent.)	...	...	...	6 fl. oz.
Distilled water, a sufficient to produce	...	...	...	20 fl. oz.

Dose: ½ to 2 fluid drachms.

A. J. C. (15/11).—**BORDEAUX MIXTURE.**—The customary Bordeaux wash is known as "4-4-50," and the official formula and instructions are as follows:—

Copper sulphate (98 per cent.)	...	...	...	4 lb.
Best quicklime in lump form	...	...	...	4 lb.
Water	...	...	...	50 gall.

The copper sulphate should be dissolved in a small wooden vessel at the rate of 1 gal. of water per 1 lb. of sulphate (iron or tin vessels must not be used). The lime should be slaked to a fine paste with a little water in another vessel, and water added gradually to make a milk, and finally diluted in a large barrel to the requisite amount (46 gall.). The 4 gal. of copper sulphate solution may now be poured slowly into the diluted milk of lime and the mixture stirred thoroughly during the process. The two components of the mixture may be kept separately for a long time, but, after mixing, the spray fluid should be used as soon as possible—at all events within twenty-four hours. Burgundy mixture is similar (see "Pharmaceutical Formulas"), but is made with sodium carbonate in place of quicklime.

J. W. S. (9/11).—**PRIMULA DERMATITIS.**—In the early stages it is usual to recommend the use of faintly alkaline lotions and subsequently a lime water-olive oil emulsion. Persons susceptible to primula poisoning should, of course, avoid all contact with these plants.

M. M. H. (1/11).—**HAIR LOTION.**—The lotion you send bears a strong resemblance to a preparation made according to the following formula:—

Sulph. precip.	...	...	...	3j.
Plumbi acet.	...	...	...	gr. xx.
Glycerin	...	...	...	3ss.
Tinct. quillaiæ	...	...	...	3ss.
Aq.	...	...	ad	3j.

R. S. (30/10).—**SCRATCHES ON GLASS.**—If the scratches on the glass are faint they might be removed by rubbing with a fairly firm cloth pad which is lubricated by means of jeweller's rouge mixed with water. The etching cream would leave a matt surface so that polishing as above would still be necessary.

B. B. T. (17/11).—**COPPER SULPHATE FOR SHEEP.**—Treatment with copper sulphate is useful where the twisted wireworm is concerned, but has little or no effect upon the smaller stomach worms. Where the disease is due to *Trichostrongylus* (a kind of smaller stomach worm) a mixture of bluestone and crude nicotine sulphate gives good results (see *C. & D.*, October 9, p. 427). The solution of bluestone is made up by dissolving 4 oz. of crystals in 2½ gallons of water in a porcelain or copper container. This will be sufficient to dose 100 sheep and may be given as follows:—

	Fluid oz.
Adult sheep weighing 80 lb. or over	4
Lambs, 9-12 months old	3½
" 6-9 "	3
" 3-6 "	2
" 2-3 "	1

On farms where parasitic gastritis frequently makes its appearance, it is advisable not to wait for symptoms to appear, but to dose all the sheep at intervals of 4 or 6 weeks throughout the late spring and the summer months, continuing in some instances into the autumn and winter. Even the use of the bluestone solution alone is not altogether without danger, and losses have occurred where ordinary strengths and doses have been employed. A preliminary test dose is, therefore, recommended where the susceptibility of a flock to the drug is not known. A few animals should be chosen representative of the whole flock (including some in the best condition, as these have been observed to be particularly susceptible to the poisoning) and dosed with the amount that is to be used in the general flock. If the flock proves to be susceptible, the dose should be lowered. The tablets of copper sulphate required by your customer would be intended for making the solution and not, we think, for direct administration.

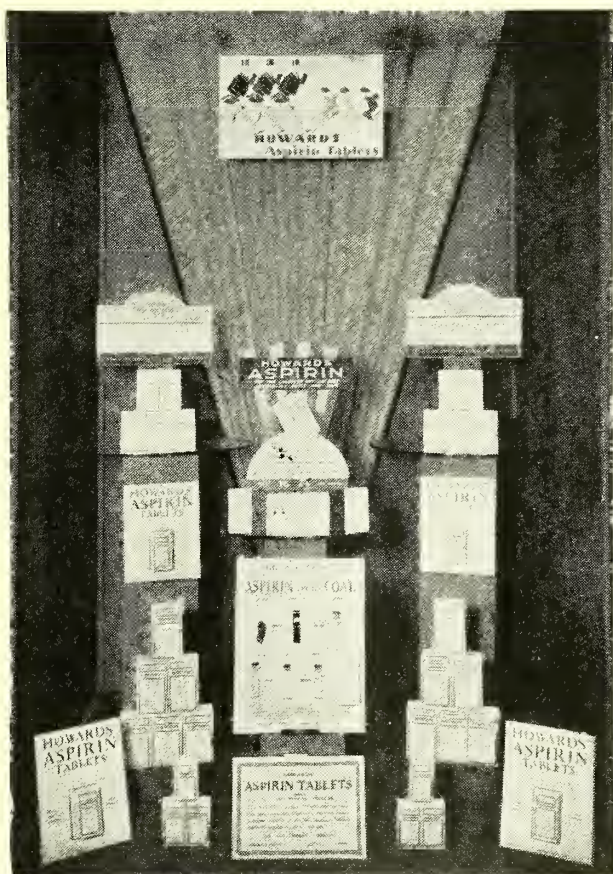
Retrospect of Fifty Years Ago

Reprinted from
"The Chemist and Druggist," November 19, 1887

A President's Rheumatism

Mr. Cleveland, the President of the United States, has lately suffered from rheumatism, and in an unlucky moment the fact leaked out. The results are encouraging to him, for we hear that thirty-nine American citizens have sent him the particulars of as many infallible cures for rheumatism. The most interesting of them are the application of hot flat-irons, of "fly-blisters," and of a liniment of rattlesnake and skunk oil. The President was likewise advised to "keep his muscles lissom by sabre exercise" ("American" for fencing), to live upon oatmeal, to try gruel, to eat nothing but raw beef, and to confine his diet to German bread and dry Rhine wine. One gentleman, who evidently believes in faith healing, suggested that the most obstinate rheumatism could not stand against a handful of horse-chestnuts carried in the pocket. That list does not include the cartloads of patent medicines which have been consigned to the White House—and its dustbin.

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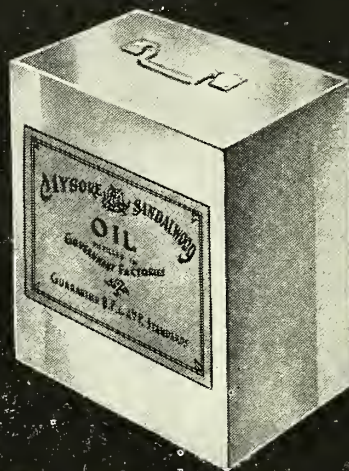
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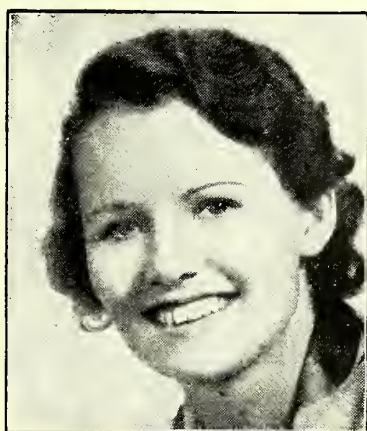
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The Pleasant Laxative is the Best Laxative FOR WOMEN!



Rexall Orderlies

The modern woman is enthusiastic about Rexall Orderlies because she knows that both her health and beauty depend upon the correct elimination induced by these tablets.

The action of Rexall Orderlies is sure and gentle, yet they form no habit. They do not cause griping or weakening of the system. Yet they are marvellously effective in keeping the system clean and clear of toxic poisons.

Ask your *Rexall Chemist*—to-day—for Rexall Orderlies. You'll like them—and so will the children!

1/3 per box

OBTAINABLE FROM YOUR

Rexall Chemist

The above shows an advertisement used for making the Rexall Pharmacy known to the public.

If you are interested, and there is not a Rexall Chemist in your vicinity, write for particulars of the Exclusive Agency for Rexall and Puretest Medicinal Products to—

UNITED DRUG Co., Ltd., NOTTINGHAM

Increase your turnover

by keeping well stocked with

PHOSFERINE

BRAND TONIC

The Greatest of all Tonics

In addition to our great press advertising campaign, a new stimulus to public demand is being given through an attractive and interesting film entitled "Nerve," in full colour, which is being shown in cinemas throughout the country.

THIS WEEK

The PHOSFERINE "NERVE" FILM

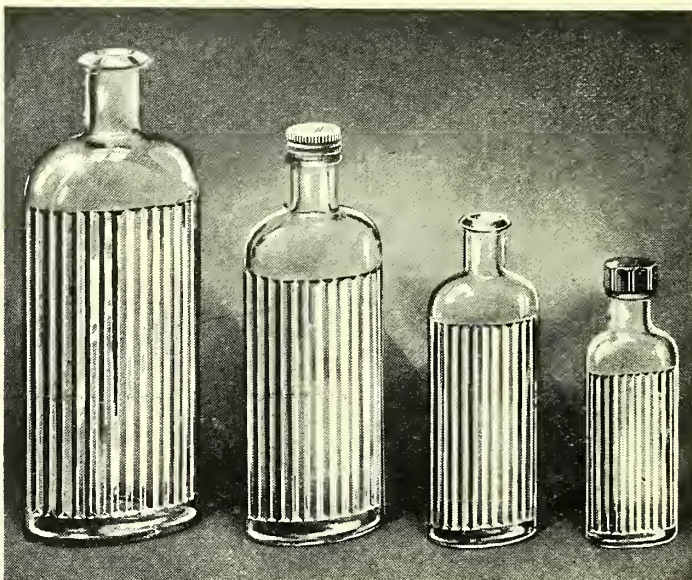
is Showing at

ALTRINCHAM, Picture Theatre, Stamford New Rd.
BATH, Forum Theatre, Southgate St.
BRISTOL, Stoll Hippodrome, Bedminster.
FINCHLEY, N.3, New Bohemia Theatre, Church End.
HARROW, Coliseum Theatre, Station Rd.
HULL, Carlton Theatre, Anlaby Rd.
HYDE, Theatre Royal, Corporation St.
LEICESTER, Trocadero Theatre, Humberstone.
MARGATE, Dreamland Theatre, Dreamland Park.
MILL HILL, N.W., Capitol Theatre, Broadway.
PUTNEY, S.W., Putney Palace, High St.
READING, Vaudeville Theatre, Broad St.
TAUNTON, Gaumont Palace, Corporation St.
WALTHAMSTOW, E., Granada Theatre, Hoe St.
WINCHESTER, Royal Theatre, High St.

LIQUID and TABLETS 1/3, 3/- and 5/-
Carriage Paid Monthly A/c

*Window display terms in United Kingdom
on application to—*

PHOSFERINE (ASHTON & PARSONS) LTD.
La Belle Sauvage, Ludgate Hill,
LONDON, E.C.4.

**RIBBED OVAL
BOTTLES****SUITABLE FOR
GARGLES AND
LOTIONS****BEATSON, CLARK & CO., LTD.**MANUFACTURERS OF
Chemical & Medical Glass
ROTHERHAM YORKS.

ESTABLISHED 1751

For Gargles and Lotions we are able to offer our White Ribbed Oval series of bottles in sizes from $\frac{1}{2}$ oz. to 20 ozs. These bottles are available with either Cork Mouths or Screw Necks, the Screw Neck series being fitted with White Enamelled Aluminium or Black Moulded Caps.

Write for samples and price list

RB 14A

**Paraffinum
Liquidum
B.P.****ALL
GRADES
SAMPLES & PRICES**On application
to

WHOLESALE ONLY

Sterns Ltd.
16, Finsbury Sq., London, E.C.2Telephone: National 7644 (7 lines)
Telegrams: Centunvir, Phone, LondonALSO
TECHNICAL
QUALITIES**A
MESSAGE
TO
CHEMISTS
IN LANCASHIRE
AND THE MIDLANDS !**

For over 70 years Jackson's Febrifuge has had a growing sale in Lancashire. Now we are boosting it with advertising throughout Lancashire and the Midlands. Its popularity is growing by leaps and bounds! It is one of the finest, purest and most efficacious patent medicines ever marketed; its demand has increased solely through constant recommendation! Give it a trial. It will not stay on your shelves. Recommend it and gain the thanks of your customers and good profits for yourself. It is backed by a lively concern, who support you by constant advertising, and literature and showcards on request.

**JACKSON'S
FEBRIFUGE**

for Quick Sales and GOOD PROFITS

**JACKSON'S FEBRIFUGE 1/3, 3/-
& 5/- BONUS SCHEME IN OPERATION**Also other famous specialties
DRAWING OINTMENT, CAMODENE SOAP &
OINTMENT, PINE DISINFECTANT**Geo. Jackson & Son Ltd., Harpurhey, Manchester**

ANOTHER CASE FOR **KORAY** TABLETS... every ache is a call for them

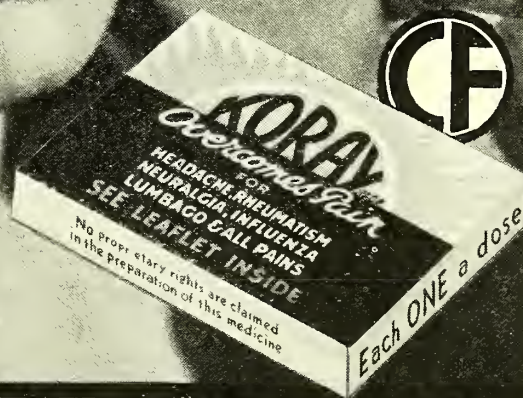
Keep up your stock of Koray, for the demand is growing daily. Every packet sold helps to fight indiscriminate distribution—every sale means profit for yourself and support for the Chemists' Friend scheme.

KORAY Tablets retail at 3^d 6^d 1/3 & 2/6 (P.A.T.A.)

Order through your usual wholesaler or direct from

KORAY LTD.

— LONDON, N.5



KORAY BRAND **TABLETS**

ARE ALSO CONFINED TO CHEMISTS ONLY IN SCOTLAND, N. IRELAND, AND ARE ONLY SOLD UNSTAMPED

Illness knows no seasons



*Keep up your
BRAND'S ESSENCE
displays even during the
Christmas shopping season*

WHEN much of your space is required for Christmas displays, Brand's Essence will still pay you well for a good position in your window and inside your shop. Even among Christmas shopping crowds there are people with friends or relatives ill—people who need only a timely reminder to make them take a bottle of Brand's Essence with their other purchases.

Remember, too, that a Brand's sale just now can earn you the goodwill of many a Christmas customer who has come to your shop for the first time. Brand's is a well-proved preparation that will always justify your recommendation of it.

You will find it pays you to keep Brand's Essence well forward even during the Christmas season.

**BRAND & CO., LTD., MAYFAIR WORKS,
VAUXHALL, S.W.8.**

**EVERY COUGH
IS A CALL FOR
KAY BRAND
LINSEED COMPOUND
COUGH CURE**

All Chemists
1/3 & 3/-

**Keen buyers buy in
20/- or 50/- lots**

Available through your Wholesaler
or write **KAY BROTHERS LTD.**
Makers: Kayborough, Reddish, STOCKPORT

Pharmaceutical

**CASTOR
PREMIER
OIL**

Tasteless
Water-White

Made in England by
**THE PREMIER OIL
EXTRACTING MILLS**
HULL Ltd.

Telegrams: "Premier, Hull" Telephone: 15191 (8 lines)

YOU CAN INCREASE -

— your turnover and secure greater profits by exhibiting the attractive PAG JUNIOR Show Stand in your window.

Many chemists throughout the country are already profiting by the constant demand for the RIDDELL Asthma Treatment—the treatment that has received the unqualified approval of the medical profession.

Write to-day for full particulars.



FRANCIS RIDDELL LTD.

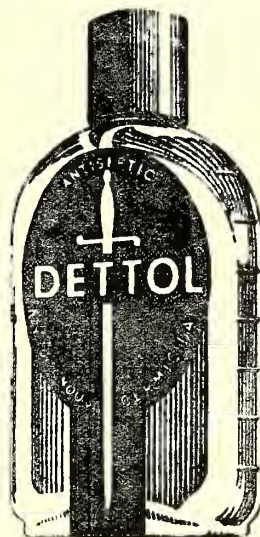
AXTELL HOUSE, WARWICK STREET, REGENT STREET, LONDON, W.1.

The
success
of
'DETTOL'
the
modern
antiseptic

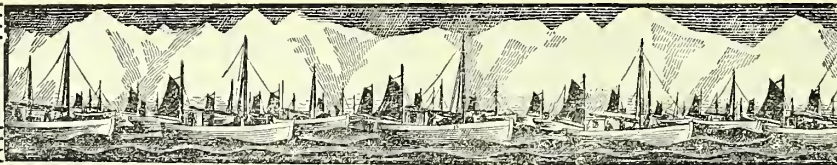
The popularity of 'Dettol' among doctors and its ever increasing use in hospitals are based upon its very real advantages.

Although deadly to germs, 'Dettol' is gentle to tissue, and can be used at really effective strengths. It thus possesses marked superiority over carbolic and cresylic antiseptics. 'Dettol' is non-poisonous, will not stain, and has a distinctly pleasant odour.

'Dettol,' in attractive bottles, sells at the reasonable price of 1/- for 4 ozs.; 1/9 for 8 ozs.; 3/- for 16 ozs. Larger sizes for medical and hospital use.



'DETTOL'
TRADE MARK
THE MODERN
ANTISEPTIC



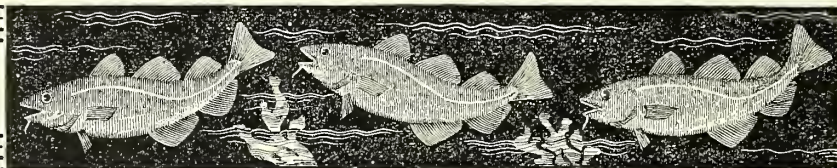
In the Winter months constant exposure to cold and damp air puts our health to a severe test.

Recommend your customers to take Norwegian Medicinal Cod Liver Oil daily, so that they may increase their power of resistance.

Norwegian Medicinal Cod Liver Oil is Nature's own cure, and contains the important vitamins A and D in the right ratio. It is the strongest bulwark against infections

NORWEGIAN COD LIVER OIL

World-renowned for Quality.



D. D. A.

ALL THE VARIOUS KINDS OF

REGISTERS

ALSO

POISON REGISTER

AND

SPIRIT REGISTER

FROM 3/- UPWARDS

STOCKED BY

JAMES TOWNSEND & SONS

EXETER;

London Office: 29, FARRINGDON ST., E.C. 4.

ESTABLISHED 1793

ATKINSON & BARKER'S INFANTS' PRESERVATIVE

The Best and Safest Infants' Medicine of 140 years' standing.

Does not contain any Scheduled Poison.

ROBERT BARKER & SON, LTD.
13 WESLEY ST., C. on M., MANCHESTER



Dr. Richard Weiss
BEST SELLERS IN
TO COUNTRIES
Preparations

VIRILINETS to restore Vitality in Premature Ageing
PANCRESALETs the innocuous oral treatment in Diabetes
ENERGETS Brain lipid tablets for Nervous Exhaustion
LEANOGIN to reduce Weight, in Endocrine Obesity

Interesting literature on request

Direct Importers and Sole Distributors wanted in all countries

NU-ORGANIC REMEDIES LTD 2 FEATHERSTONE BDGS.
H. HOLBORN, LONDON, W.C.1

A Statement by

British Cod Liver Oil Producers (Hull) Limited, on

SEVENSEAS HIGH POTENCY COD LIVER OIL

IT has been brought to our notice that suggestions are being made to the effect that it is impossible to obtain natural supplies of Cod Liver Oil of the vitamin potency advertised by us as "SevenSeaS" High Potency Cod Liver Oil, the implication being that "SevenSeaS" High Potency Oil has been fortified by the addition of vitamins from some other outside source.

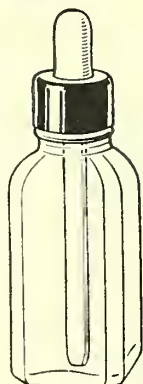
Our reply is as follows:—

WE HEREBY DECLARE THAT "SEVENSEAS" HIGH POTENCY COD LIVER OIL IS IN ALL RESPECTS A PURE NATURAL COD LIVER OIL AS DEFINED BY THE 1936 ADDENDUM TO THE BRITISH PHARMACOPŒIA. IT CONTAINS NO ADDED VITAMINS AND NOTHING HAS BEEN DONE TO THE OIL TO INCREASE ITS NATURAL POTENCY. THIS HIGH POTENCY OIL IS OBTAINED FROM FRESH COD LIVERS AND BY THE SELECTION OF THOSE PORTIONS OF OUR ENORMOUS ALL-THE-YEAR-ROUND PRODUCTION THAT COME UP TO THE GIVEN STANDARD.

BRITISH COD LIVER OIL PRODUCERS (HULL) LIMITED
ST. ANDREW'S DOCK · HULL

TOOGOOD'S

(NO. 6368)

DROPPING BOTTLES

ENGLISH MADE.

SUPER QUALITY.

AMBER GLASS.

FITTED BROWN BAKELITE CAP,

BROWN TEAT AND GLASS TUBE.

SUPPLIED WITH OR WITHOUT BOXES.

FULL PARTICULARS FROM

WILLIAM TOOGOOD LIMITED**77 SOUTHWARK STREET. LONDON, S.E.1**

British Made
"Adaptocaps"
 for all
 your
 bottle
 Capping

**The London Capsule Co.**EMPIRE WORKS, MITCHAM RD CROYDON
TELEPHONE: THORNTON HEATH 1234/5 TELEGRAMS: "METACAP, CROYDON"**Armstrong's**TAPER  CORKSARMSTRONG CORK CO. LTD.
KINGSBURY, LONDON, N.W.9.

WE SUPPLY
DECORATED TINS
 FOR PACKING

OINTMENTSAND OTHER PRODUCTS
SAMPLES AND PRICES UPON REQUESTTHE CALDICOT TIN STAMPING WORKS LTD.
CALDICOT, Nr. CHEPSTOW, Mon.

'ASPRO' WINTER ACTIVITIES

A specially intensive 'ASPRO' advertising campaign is in progress—it will be continued right through the cold and 'flu period. As during last year the demand for 'ASPRO' tablets is rising steadily week by week. There is every sign that even last year's rocketing sales figures will be exceeded. This is significant—it means that more and more people are learning the value of 'ASPRO' service.

'ASPRO' winter advertising comprises over £100,000 worth of newspaper space—widespread broadsheeting—and a vast distribution to chemists of window display material and selling aids. Years of publicity on this scale have created hosts of permanent 'ASPRO' users in every town in the kingdom. It's because of this that 'ASPRO' displays are the most powerful sales-makers in existence—use them and you bring in NEW customers. So take part in this great winter activity—

JOIN IN WITH A PERMANENT 'ASPRO' DISPLAY

Here's the
latest one



'ASPRO' consists of the purest Acetylsalicylic Acid that has ever been known to Medical Science, and its claims are based on its superiority.

Made in England by ASPRO LIMITED, Slough, Bucks.



Telephone: Slough 608

No proprietary right is claimed in the method of manufacture or the formula.



**PRESS
ADVERTISING
IN 300
PAPERS**

**BROADSHEETING
OVER HALF
THE COUNTRY**

**NEW SALES
AIDS**

**AVAIL YOURSELF OF
THE 'ASPRO' BONUS**

BONUS ON 5's & 10's

One gross order ... Bonus 1 dozen packets
Half gross order ... Bonus ½ dozen packets
Half gross of either size is the minimum order
accepted for bonus purposes.

BONUS ON 27's

One gross order ... Bonus 2 dozen packets
Half gross order ... Bonus 1 dozen packets
Quarter gross order Bonus ½ dozen packets
Quarter gross is the minimum quantity.

NO BONUS ON 60's

BONUS CONDITIONS—The only conditions made are that the Chemist who buys on these terms undertakes to show 'ASPRO' advertising matter in his shop window for 14 days and sell at advertised prices. Acceptance of Bonus is considered acceptance of conditions regarding display and selling prices.

BIGGER SALES

are always made by displaying

MORFI

Discreet and refined
showcards and electric
signs are at your
disposal for window and
counter display.

May we send you
a selection?

These showcards are
worthy of a place in every
chemist's window. They
serve to remind customers
about Morfi and supplement
the consumer advertising on
prominent hoardings and
sites in the principal railway
stations throughout the
country. Take advantage of
the increasing demand by
displaying these Morfi show
cards.



Sole Morfi Distribution

HERBERT FROMM
29-31 OXFORD ST., LONDON, W.1

The CHEMIST AND DRUGGIST SUPPLEMENT

This Supplement is inserted in every copy of The Chemist & Druggist

NOVEMBER 20, 1937

28 ESSEX STREET, LONDON, W.C.2

ADVERTISEMENT TARIFF

ALL ADVERTISEMENTS are PREPAID, so that remittance must accompany instructions in each case. If it be necessary to telephone or telegraph an urgent announcement this may be done, provided the money is telegraphed at the same time.

BUSINESSES WANTED and for **DISPOSAL, PREMISES TO LET** and **FOR SALE, PREMISES WANTED, PARTNERSHIPS, COCCS** for **SALE** and **AGENCIES**—6/- for 50 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

SITUATIONS OPEN—6/- for 40 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

SITUATIONS WANTED—2/- for 18 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

LEGAL NOTICES, TENDERS, AUCTIONS, and all specially-spaced announcements, 1/3 per nonpareil line (12 lines = 1 in. single column). (Box No., 1/- extra.)

MISCELLANEOUS (Wholesalers' Section) for odd and second-hand lots—10/- for 60 words; 1/- for every additional 10 words or less. (Box No., 1/- extra.)

EXCHANGE COLUMN (for Retailers, etc.)—Twopence per word, minimum 2/- (Box No., 1/- extra.)

REPLIES FROM ADVERTISERS—1/- per line; 3 lines 2/6.

THE CHEMIST & DRUGGIST, 28 Essex St., Strand, London, W.C.2

Telephone: Central 6565 (10 lines).

Telegrams: "Chemicus, Strand, London."

CLOSING FOR PRESS

must reach us
not later than

FIRST POST THURSDAY MORNING

All advertisements intended for
insertion in this Supplement

ORRIDGE & CO. 56 LUDGATE HILL, E.C.4

ESTABLISHED 1846

Telephone Nos.: CITY 2283 & 7477

May be CONSULTED at their Offices on MATTERS of SALE, PURCHASE & VALUATION

We make no charge to purchasers, and invite intending buyers to communicate with us, stating their requirements

We can arrange for a sum up to 50% of the total purchase price to be advanced upon the purchase of any approved business, subject to investigation. Applicant must furnish references and be able to invest the remainder of the purchase price himself.

1.—**ESSEX COAST (HEALTH RESORT)**.—Good Middle-class Business with Toilet Trade; very old-established; takings last year £2,284; net profit to managing proprietor about £600 per annum; valuable stock and fixtures; attractive living accommodation; valuation terms entertained; property also for disposal.

2.—**HARROW**.—Owing to the sudden death of Mr. W. Breingan, his two businesses are for immediate disposal; each concern returns about £2,000 per annum; living accommodation is available; valuable leases; the concerns can be bought separately or together; full particulars upon application; Sole Agents.

3.—**ROTHERHITHE**.—Cash Drug Store for sale; takings last year £625; long lease; good living accommodation; low rental; price £250, plus stock at valuation.

4.—**ST. JOHN'S WOOD (NEAR)**.—High-class Dispensing Business; net profit over £900 per annum; property also for sale; price required for goodwill £1,250, or near offer; full particulars upon receipt of banker's reference.

5.—**S.E. LONDON**.—Very old-established General Retail Business; scope for large increase under younger management; takings last year £712; net profit about £5 per week; living accommodation over; new lease at £65 rising to £70 per annum; price £500 or offer.

6.—**HOLBORN (NEAR)**.—Old-established High-class Business situate in excellent position; turnover over £3,000 per annum; excellent profits; attractive fixtures and good, clean stock; valuable sub-let; moderate rent and rates; price £2,500 all at, or valuation terms entertained.

7.—**MILL HILL (NEAR)**.—General Middle and Working-class Retail Business with Photographic; turnover last year £2,633; net profit £633; excellent Panel; stock worth about £500; modern flat over; price £1,500; genuine reason for disposal.

8.—**BAYSWATER (NEAR)**.—General Retail Business; returns £36-£40 per week; single-fronted shop, well fitted; stock worth £300-£400; moderate rent and rates; valuation terms entertained.

9.—**STRAND (NEAR)**.—City Business with Mixed Toilet trade; turnover last year £2,125; net profit £320; lock-up shop; stock worth about £350; price for quick sale £750.

10.—**LEYTON**.—Drug and Photographic Store with scope for N.H.I.; takings last year £890; accountant's figures; stock and fixtures worth about £440; living accommodation over; rent £90 per annum; price £550, or valuation terms entertained.

11.—**BLACKHEATH (NEAR)**.—Good Middle-class Retail Business; returns, present rate £43-£45 per week, increasing; new lease will be granted at rental which is almost covered by sub-lets; valuable stock and fixtures; price £650 plus stock to suit purchaser.

12.—**KENT (FEW MILES OUT)**.—Family Retail Business; turnover well over £1,200 per annum; small Optical connection; stock and fixtures worth about £500; nice living accommodation over; reasonable rent; price £550, or valuation terms entertained.

13.—**WESTERN COUNTY**.—Good-class Country Retail Business for sale owing to extreme ill-health; returns last year £1,419; scope for large increase; attractive shop, beautifully fitted in mahogany; heavy stock; new lease will be granted; price about £1,000.

14.—**ELTHAM**.—General Retail Business with Optical connection; returns last year £3,393; net profit £477; double-fronted shop; stock and fixtures worth £1,100; price £2,100; worth attention.

15.—**SOUTH WALES**.—General Retail Business returning about £30 per week; net profit to managing proprietor £400 per annum; stock and fixtures worth £550; large house over; no opposition; valuation terms entertained.

16.—**BIRKENHEAD**.—General Retail Business with living accommodation over; rent £85 per annum; takings last year £2,683; stock worth £750; first reasonable offer accepted; total purchase price probably in the neighbourhood of £1,250.

17.—**HOME COUNTY**.—Good-class Retail Business making a net profit of over £400 per annum under management; stock and fixtures worth about £1,000; nice living accommodation over; rent £100 per annum, slightly rising; valuation terms entertained.

18.—**SUSSEX COAST**.—Old-established Middle-class Business; takings last year £1,468; net profit £408; attractive fixtures and good, clean stock; nice living accommodation over; price about £1,000.

19.—**SURREY**.—High-class Suburban Business; takings this year about £4,000; attractive pharmacy, beautifully fitted and heavily stocked; purchase price £2,250 including book debts.

Chemists' Transfers, Valuations for Sale, Stocktaking & Probate, Sales by Auction

Special Terms for Income Tax Valuations and Preparation of Accounts by Qualified Accountants

ERNEST J. GEORGE & Co.

Bank Chambers, 329 High Holborn, London, W.C.1
 Telephone Nos.: Holborn 7406 & 7407 (2 lines)
County Bldgs., Bridge St., Walsall
 Telephone: Walsall 3774

Lancashire and District Representative: Mr. E. BROWN, 21 Davenport Road, Hazel Grove, Stockport. Telephone: Great Moor 2495

Correspondence, mutually confidential, is invited from prospective purchasers of the following businesses at present available for purchase.

(C1) CHISWICK (NEAR).—Excellent opportunity to acquire particularly good profit earning business with large N.H.I., and very low rental; present returns approximately £1,700 per annum; net profit to Owner-Proprietor £450/£500, with excellent scope for increase; price all-at £350 or near offer, including valuable lease.

(C2) SHROPSHIRE (DEATH VACANCY).—Excellent country business for immediate disposal; yearly sales approximately £1,250; no opposition; good saleable stock, estimated at £300; rent £30; rates £8; immediate possession granted and first reasonable offer accepted.

(C3) GRIMSBY.—Increasing business; net profit for last year £260; this year should be considerably higher; good living accommodation; first reasonable offer accepted as early sale desired.

(C4) EARL'S COURT.—£200 or near offer will purchase on deferred terms, an established, good-class business; excellent opportunity for young chemist with limited capital; further particulars upon application.

(C5) DERBYSHIRE (SMALL TOWN).—Old-established with increasing turnover, now approaching £30 weekly; good house; rent £50 per annum; rates £25; price £750 or near offer.

(C6) BRIGHTON.—Unopposed, lock-up Pharmacy, at present under management; turnover for 1936/37, £1,100; this year the returns have increased and should reach approximately £1,350; gross profit about 36 per cent.; low rental; price £550, including stock and fixtures estimated at £480.

(C7) HAMPSHIRE.—Branch business, with increasing turnover; small house and garage; returns last year £1,420; net profit £364; rent £60; rates £17; 14 year lease; price all-at £500.

(C8) BOURNEMOUTH (NEAR).—Opportunity to acquire a business with no near opposition, at a very low figure (£350 all-at); turnover £1,120; net profit £300; up-to-date house; growing district.

(C9) NORBURY (NEAR).—Old-established, middle-class business, at present under management; steady turnover; returns for last year £1,325; definite scope, as the district is increasing; reasonable rental; price £525, including stock and fixtures estimated at £500; excellent opportunity.

(C10) BRISTON (NEAR).—Main road position; established over 100 years; average returns approximately £1,400; net profit £350/£400; excellent and profitable trade mark included; very low overheads; quick sale desired and first reasonable offer accepted.

Valuations for transfer, probate, income tax, etc., promptly executed at economical rates. Agency for locums, managements, etc

THE ASSOCIATION OF MANUFACTURING CHEMISTS, LIMITED

(Business Agency, Transfer & Valuation Department)

KIMBERLEY HOUSE, and at EXCHANGE CHAMBERS,
 Holborn Viaduct, LONDON, E.C.1 2 Bixteth St., LIVERPOOL.

PARKIN S. BOOTH, Valuer. Tels.: CITY 3691 (4 lines).

VALUATIONS. SALES OF BUSINESSES. STOCKTAKINGS.
Enquiries Invited.

BUSINESSES FOR DISPOSAL

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

EXCEPTIONAL OPPORTUNITY

OLD-ESTABLISHED WHOLESALE BUSINESS: PERFUMERY AND TOILET GOODS AND HAIRDRESSERS' SUNDRIES

Near London; Turnover about £6,000; easily worked; can be acquired for £2,000 or near offer, which includes stock and fittings at valuation approximately £1,250; equitable rent and living accommodation. Audited accounts available showing consistent record. Fulllest information from:—

Ernest J. George & Co., 329 High Holborn, London, W.C.1

HACKNEY.—Drug Store, prominent corner position, market street; large imposing double-fronted shop, two entrances; recently opened; receipts first week £11 10s.; owner unable to give supervision owing to health reasons; living accommodation and garage; can be sublet; disposal for little over cost opening, about £325. 10/6, Office of this Paper.

HOVE.—Genuine reason for immediate disposal of Well-stocked Pharmacy; double fronted; in main-road position; at present under management; good scope for live Pharmacist; price £350, or near offer; moderate rent; living accommodation if required. Apply 11/53, Office of this Paper.

(C11) HANWELL (NEAR).—Increasing business of the lower, middle class type; large panel; turnover for 1936-37, £2,819; gross profit £1,013; net over £650; rent £135; living accommodation; price £1,800 or near offer.

(C12) WILLESDEN (NEAR).—Main-road business, which has been very profitably run on "store" lines; turnover for 1936-37, £2,976; gross profit, £990; net, £702; living accommodation; owner taking up lucrative position outside pharmacy, and must sell as quickly as possible; price about £1,600; reasonable offer considered.

(C13) LINCOLNSHIRE.—Middle-class business with high percentage profit; turnover (certified) for 1936/37, £1,144; gross profit £521; house with four bedrooms, and up-to-date conveniences; rent £75; stock and fixtures estimated at £470; owner has agreed to purchase a business in the South, and will accept the first reasonable offer.

(C14) BEDFORDSHIRE.—Drug Store (lock-up) with no near opposition; turnover for 1936/37, £923; gross profit £327; net £274; excellent scope under qualified proprietorship; no Sunday or half-day duty; price £400 all-at.

(C15) LONDON, E.C.—City Business with increasing turnover, now at the rate of about £2,200 per annum; no week-end duty; genuine reason for selling; price £750 all-at.

(C16) BAYSWATER (NEAR).—Old-established; good-class; main road position; turnover £2,500-£2,750; net rent £90; excellent scope; price £1,350; alternatively partnership on basis proportionate to investment (£400-£700).

(C17) NORTH WALES.—Returning about £1,000 per annum with good scope for increase; living accommodation; low rental; no near opposition; price £250 all-at.

(C18) SURREY.—Particularly attractive modern Pharmacy, situated in good-class district; at present under management; turnover for last financial year, £2,357; net profit to owner-proprietor approximately £400; excellent scope; up-to-date house above; price £1,150, including stock and fixtures estimated at £750, subject to valuation.

(C19) SOMERSET (SEASIDE RESORT).—Turnover approximately £1,600 per annum; main road position; living accommodation; price £600 all-at, or £300, S.A.V.

(C20) EDGWARE (NEAR).—Well positioned; turnover for 1936-37, £2,633; gross profit, £1,046; net, £633; certified accounts; up-to-date flat; price £1,500 all-at.

LONDON SUBURB.—Neglected business; suit beginner with energy; established 15 years; lease 11½ years to run; small capital only required; must sell quickly as owner ordered to hospital; particulars in confidence; interview preferred. P.C.B. 263/36, Office of this Paper.

MIDLANDS.—Old-established Dispensing and Family business with full off-licence; turnover £2,300; moderate rent and good sub-lets; no near opposition; excellent living accommodation and large garden; genuine enquiries to 11/31, Office of this Paper.

MIDLANDS.—Wonderful opportunity for young Qualified Chemist to acquire business, with excellent prospects, in rapidly developing district; nearest Chemist 1½ miles; shop and house, corner premises, recently built, newly decorated throughout; lease or purchase; weekly returns approximately £18; stock £175, fixtures, etc., £200; reasonable price; well worth investigating. Further particulars from Sole Agent, H. A. Gutteridge, 32 High Street, Loughborough.

MORECAMBE, Lancashire, the Progressive Seaside Resort.—Golden opportunity for live Qualified man; excellent Drug Stores, main road, one minute Promenade; heavy stock; Wine Licence; Kodak, Selar; splendid living accommodation attached; reasonable rent; forced retirement through ill-health; genuine; no agents; well worth seeing. Particulars, Shorrocks, 25A Albert Road, Morecambe.

SOUTHEAST-ON-SEA.—A Chemist must sell; under management; stock s.a.v.; up-to-date fittings; small incoming; growing neighbourhood; no reasonable offer refused. Apply Station Estate Office, 114 East Street, Prittlewell (opposite Prittlewell Station).

ALL Overhead Charges met by Subsidiary Business. Exceptionally good opportunity for fully Qualified Chemist to start in main-road position without fear of failure. To those interested and wanting proof of this advertisement, write or call (Sunday no objection) to Owner, 12 Carbery Row, Southbourne, Bournemouth. Alight Irving Road bus stop. Telephone, Southbourne 1231.

CHEMISTS' and Druggists' Business for Sale; over £700 gross profit; can be purchased out of income; good business; must be sold; low expenses; scripts average 360 per month; turnover £1,632. 314/424, Office of this Paper.

CHEMIST AND DRUGGIST.—On account of the recent death of Mr. James Laing, Chemist, 17 High Street, Laurencekirk, the business of chemist and druggist carried on by him is now offered for sale. The business is long established. The shop with dwelling-house adjoining may be purchased or leased. Particulars from W. J. C. Reed & Sons, Solicitors, Laurencekirk, with whom offers should be lodged forthwith.

FOR SALE.—Old-established Chemist's Business in busy S.E. London district, main street, corner shop, well fitted and stocked; living accommodation; special reasons for sale; further details to genuine enquirers. Write, Box 843, Reynells', 44 Chancery Lane, W.C.2.

FOR SALE.—Well-established Chemist's Business in Yorkshire; N.H.I. about 400 per month; good Photographic trade; Selo and Kodak Agencies; premises for sale or lease; rent £52 per year; stock and fittings at valuation, plus £100. 13/5, Office of this Paper.

HERBAL Drug Stores.—Corner position; electric and gas; stock, fixtures, goodwill; good living; trial given; shop, four rooms, side entrance and yard; purchaser takes all my home complete; must sell before December 30, going abroad, India; agreement given; rent £1 week inclusive; no opposition in district; open 2½ years; all at £150. Herbalist, 150 Dartmouth Road, Sydenham, S.E.26.

OPPORTUNITY to acquire attractive business in S.W. London for £100 and s.a.v.; guaranteed net profit of £350 per annum (increasing) to chemist-owner; quick sale essential for health reasons. 10/4, Office of this Paper.

£250.—**DRUG Stores**, busy S.W. London main road; congested area; good Dispensing and Photographic; N.H.I. can be added; net £4 per week plus subsidiary shop, business, sub-letting, etc.; stock, fittings about £350; part-purchase can remain; gold mine for resourceful Chemist; 20½ years' lease at £130. Further details from 11/13, Office of this Paper.

BUSINESSES WANTED

PRIVATE Pharmacist desires to purchase Business in the neighbourhood of Bradford, Yorks; please give rough details in first letter. Write 315/471, Office of this Paper.

PREMISES TO LET

6s. for 50 words or less ; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

DAGENHAM

IMPORTANT MODERN SHOP, with spacious upper part and yard in rear, available at moderate rental in busy cash market. Apply:

HERRING, SON & DAW,

117 Victoria Street, S.W.1.

VIC. 3177/8.

MITCHAM.—New lock-up Shops, wonderful scope for Chemist, surrounded by large housing developments, flats and Hospital; excellent opportunity for one with small capital; shop fronts fitted; rent £75 per annum; six months rent free to first tenant. Apply G. T. Hodges & Sons, 281 London Road. Mitcham 3896.

NEW MALDEN.—Excellent shops to be let or sold, each with two flats over, situated in centre of new estate, which is about a mile from nearest shops. Box No. 6, Homefinders, 74 Victoria Street, S.W.1.

NORTH CHEAM.—Few excellent shops and flats to be let or sold, surrounded by new estates and on main road. Box No. 6, Homefinders, 74 Victoria Street, S.W.1.

ST. ALBANS.—New Shops, frontage 20 ft. by excellent depth, with flats over, one mile from centre in rapidly growing district; particularly suitable for Chemist; rent £150 per annum or freehold for sale. Apply, Hillier, Parker, May & Rowden, 27 Maddox Street, W.1. Tele. MAYfair 7666.

SWISS COTTAGE, N.W.

AN Excellent Parade of Shops, several already let to Multiple Firms, are being erected in a most prominent and commanding position serving a densely populated district; excellent opening for Food Traders. Rents from £300 per annum. Apply

HERRING, SON & DAW,

117 Victoria Street.
VIC. 3177/8.

EXCEPTIONAL OPPORTUNITY, TOLWORTH—THE SHOPPING PARADE.—Large Shop, with ultra-modern flat; vicinity Woolworths, Sainsburys, etc., etc.; rent £200 per annum; Chemist urgently needed. Owners, Evelyn Property & Investment Co., Ltd., 26 Langham Street, W.1. LANGHAM 3234.

CHEMIST can acquire Modern Premises at low rental in busy position situated close to Earls Court Exhibition and large block of luxury flats. Apply:—

HERRING, SON & DAW,

117 Victoria Street, S.W.1.

VIC 3177/8

OPENING FOR CHEMIST AND DRUGGIST; excellent shop in main thoroughfare; just off West Ham Lane, close Stratford Broadway; fine shop, with large window and good upper part of four rooms, scullery, etc.; rear entrance; rent £75 p.a., exclusive; a 7-, 14-, 21-years' lease will be granted to substantial tenant; freehold might be sold on easy payment terms if required. Owner, 39 Moorgate, E.C.2. Met. 0507.

AGENCIES

6s. for 50 words or less ; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

TO OWNERS OF PROPRIETARIES

AN up-to-date, progressive house of Manufacturing Chemists, with a large, fully-equipped factory in London, invites enquiries from principals for the MANUFACTURE, PACKING AND DISTRIBUTION of Proprietary Pharmaceutical Preparations. Manufacturing Dept., 64 Hatton Garden, London, E.C.1.

AGENTS Required, already calling on Chemists, Hairdressers and Stores, to handle well-advertised line. Apply in writing, giving full details of experience, territory, number of open accounts, etc., EBE Products, Ltd., 11 Diana Place, Euston Road, N.W.1.

MANUFACTURERS with ample factory accommodation are prepared to negotiate for Manufacturing and Packing, under customer's own name; Pharmaceutical or Cosmetic preparations to our or customers' formulae, packed or in bulk. **LOWTHERS OF LONDON, LTD.**, 33/37 Moreland Street, London, E.C.1.

PROPHYLACTICS of unparalleled quality, in bulk or in novel proprietary packs, every piece tested, new process; highly profitable; excellent results wherever put on market; Wholesale Druggists' Sundriesmen having Sales Organisation, especially in South and Midlands, apply for Sole selling rights to 10/16, Office of this Paper.

NAMES AND ADDRESSES

When sending advertisements for any of the columns of this Supplement, advertisers—as a guarantee of good faith and not necessarily for publication—should always give their names and addresses. It sometimes occurs that this rule is not adhered to and delay and disappointment ensue. Strict attention to this detail will be appreciated.

FINANCIAL

PROPRIETARY LINE.—Capital required by owner of well-tried Proprietary Line to push on the market; partnership or purchase can be arranged. Apply 8/1, Office of this Paper.

APPOINTMENTS

COUNTY BOROUGH OF MIDDLESBROUGH.

HEALTH DEPARTMENT

Appointment of Dispenser.

THE Hospitals Committee invite applications from Members of the Pharmaceutical Society for the Post of DISPENSER (FULL-TIME) at the Holgate Municipal Hospital, Middlesbrough, at a salary at the rate of £208 per annum. The duties to be carried out by the successful candidate will be as follows:

- (a) The Dispenser shall be employed mainly at the Municipal Hospital, and the duties will include lecturing to the Nursing Staff.
- (b) To check up the administration of the Poisons Rules at the Hospitals and other Institutions.
- (c) To assist in the carrying out of the chemical analyses connected with the Laboratory.
- (d) Any other duties relevant to the appointment of Dispenser as may from time to time be regarded as desirable in the opinion of the Medical Officer of Health.

The post is designated under the Local Government and Other Officers' Superannuation Act, 1922, and the successful candidate will be required to pass a medical examination.

Applications in an envelope endorsed "Dispenser, Holgate Municipal Hospital," must be received by the Medical Officer of Health, Health Department, Middlesbrough, on or before November 30, 1937.

Canvassing in any shape or form will be deemed a disqualification.

Municipal Buildings,
Middlesbrough.

PRESTON KITCHEN,
Town Clerk.

SITUATIONS OPEN

RETAIL (HOME)

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

BIRMINGHAM.—An Assistant (male) required immediately; careful Dispenser, experienced Counter and Windows. Please state age, experience and salary required (if Qualified). Full particulars first letter, J. O. Hough, Chemist, 88 Gravelly Lane, Erdington.

LONDON.—Good salary offered to Qualified Lady to act as Superintendent, chiefly for N.H.I. Dispensing and assist at Counter. Please state full particulars, 12/8, Office of this Paper.

LONDON.—Qualified Assistant wanted about middle of December, for middle-class business and N.H.I. Dispensing; give full particulars of experience, names of references, age, when disengaged and salary required. Apply (letter only) "Chemist," 300 Amhurst Road, London, N.16.

MANCHESTER.—Pharmacist (lady or gent.) wanted to run easy shop. State particulars as to age, salary and experience, etc., 315/469, Office of this Paper.

SOUTH COAST.—Qualified Male Assistant, keen Salesman, required for good class Pharmacy; progressive post; commencing salary £4. 11/33, Office of this Paper.

SUSSEX.—Young Qualified; permanency; moderate salary; interview. Full particulars to 11/5, Office of this Paper.

A QUALIFIED Lady or Gentleman required to manage branch business, London suburb; applicant must be capable N.H.I. Dispenser and Window-dresser; salary and commission. Full particulars and photo (if possible) to C. A. Moore, M.P.S., 350 Eastern Avenue, Ilford, Essex.

A SSISTANT, Qualified; must be quick, good Salesman; elderly man preferred; comfortable berth; salary must be moderate; vacant first week in December. 9 Thurlstone Road, S.E.27. Phone: Streatham 7420.

A SSISTANT, Unqualified, male; near London; good prospects for good all-round man. Kindly give particulars of experience, age, salary required and when free, 13/4, Office of this Paper.

D ISPENSER (male) required (aged 26-30) for large West End store. Apply 315/462, Office of this Paper.

D ISPENSER required immediately for large insurance and private practice in Bermondsey, S.E.16; part-time at first, with view to permanency; surgery just over one mile from London Bridge; a four-roomed flat over the surgery could be available shortly for a married man. 10/12, Office of this Paper.

E XPERIENCED Assistant, Qualified preferred, but not essential, for Croydon district; must be quick and intelligent for busy shop; Counter and Dispensary; no Sunday duty. Apply, stating age, experience, references, salary required and usual particulars in first letter, 11/48, Office of this Paper.

F OUR GUINEAS PER WEEK.—Junior Chemists required for London for supernumerary duty; permanent employment with prospects of management when sufficiently experienced. Write 315/470, Office of this Paper.

J UNIOR Assistant (19-21) wanted soon for Family and Dispensing business; gentleman with Dispensing, etc., experience essential; one finished apprenticeship would be suitable. Please state age, height, experience, wage required (enclose photo). G. Heughan, Chemist, Kingsway, Dewsbury, Yorks.

L ADY, Qualified (30 to 40); general efficiency essential; commencing salary £195 per annum; near Liverpool. 315/472, Office of this Paper.

P ART-TIME Man wanted for 2 or 3 evenings a week, principally for Dispensing; hours 6 or 6.30 to 8 p.m. (9 p.m. Saturday); experienced in N.H.I.; please state remuneration required. Address, Hanham, 29 Grove Vale, East Dulwich, S.E.22. References required.

P HARMACY.—Female Assistant required for Christmas Sales period; knowledge of Toilet and Fancy articles an advantage. Apply in writing, stating age and experience, to the Staff Manager, Royal Arsenal Co-operative Society, Limited, 113 Powis Street, Woolwich, S.E.18. Endorse envelope "Pharmacy." Note.—Canvassing of members of the General Committee or Officials will disqualify.

Q UALIFIED Chemist, with Optical qualification, required to manage good class business; good prospects for a gentleman with sound knowledge of Optics and Pharmacy. State full details of age, experience and salary required, to R. A. Neville, 25 Bell Street, Henley-on-Thames.

Q UALIFIED lady or gentleman for steady Family trade; London; permanent. Apply, stating salary, etc., which must be moderate, 10/5, Office of this Paper.

Q UALIFIED Manager required at once; send full particulars and copies of testimonials; living accommodation. Apply, "J. T.," Steyne Pharmacy, West Street, Bognor Regis.

T HE BLACKPOOL CO-OPERATIVE SOCIETY, LTD.—Wanted, Qualified Male Optical Assistant, registered J.C.Q.O., with Pharmacy experience (age under 30). Applications in writing, giving age and particulars of experience, and stating when at liberty to take up duties, to be addressed to the office of the Society, Sheppard Street, not later than Wednesday, November 24. Envelopes endorsed "Optical" in top left corner.

PHOTOGRAPHS, TESTIMONIALS, &c.

When replying to advertisements in this section applicants are strongly advised not to send (unless specially requested) ORIGINAL TESTIMONIALS or VALUABLE PHOTOGRAPHS. Many of these announcements produce an exceptionally large response and, as can be readily understood, the task of returning photographs, testimonials, &c., is one of some difficulty.

UNQUALIFIED Assistant (male) for good-class West End business; post can be held open for 3-4 weeks for the right man, if necessary; state age, height, experience, references, salary expected, and when free, to G. H. Pierson, 94 Queen's Road, Bayswater, W.2.

UNQUALIFIED Assistants (age 20-30 years) required for London district; permanent, progressive positions to suitable applicants. Apply, giving full particulars, to Retail Staff Manager, Timothy Whites & Taylors, 70 Vauxhall Bridge Road, London, S.W.1.

UNQUALIFIED Junior required immediately; one having served apprenticeship preferred. State particulars and salary required in first letter, J. T. Davy, Ltd., 128 Fore Street, N.18.

UNQUALIFIED Male Assistant wanted at once; must be of good appearance; capable and trustworthy. Apply to Manager, Williams Cash Chemists, Ltd., 14A Argyll Street, Oxford Circus, W.1.

UNQUALIFIED Man required (age 19-25) at Farnham, Surrey; excellent dispensing experience. Reply, stating age, experience, references, etc., to Trimming & Co., Ltd., 49 High Street, Alton, Hants.

WANTED by Doctor, Qualified Lady Dispenser and Book-keeper, Sussex; outdoor. State age, salary, experience, and give references to 11/7, Office of this Paper.

WANTED (early January).—Assistant Manager (30-35) for high-class business, S.E. London. Write, full particulars, 315/464, Office of this Paper.

WANTED.—Girl (age 16-18 years), for Counter and Packing stock; experienced preferred. Apply by letter only, with usual particulars, to "Chemist," 24 Thackeray Street, Kensington, W.8.

YOUNG Lady Assistant, Unqualified; knowledge of up-to-date Beauty Preparations, Window-dressing essential; London. Apply "B.," 315/467, Office of this Paper.

YOUNG Qualified Pharmacist required for a departmental store in the Midlands; male or female. Reply, stating age, particulars of experience and salary required, to 315/463, Office of this Paper.

WHOLESALE

NEW Firm, factories in London and Glasgow, with large resources, require the services of energetic representatives in London area. Principal products new type of bottles, Orange and Grape Fruit, infinitely superior and cheaper in price to existing Squashes and Cordials. Liberal commission offered. Only those with established connexions amongst Wholesale and Large Retail Firms need apply. 11/54, Office of this Paper.

CHEMIST with experience, and good Organiser, to control Warehouse of Wholesale House. Apply, with full particulars of experience and stating salary required, 315/466, Office of this Paper.

COMPRESSED TABLETS.—Experienced man accustomed to accurate working, required for Tablet Compressing Room of old-established Manufacturing Chemists; a large variety of tablets are produced, applications, therefore, are invited only from persons who have comprehensive knowledge of Tablet Compressing. 315/460, Office of this Paper.

COUNTER-HANDS wanted for Manufacturing Chemists and Druggists, Manchester district. Applicants must be experienced in Wet and Dry Room work. Apply by letter, stating age, previous experience and wage required, 314/427, Office of this Paper.

ESTABLISHED Manufacturing Concern putting entirely New Preparation on the market invites application from Sales Managers and others with connexion amongst Chemists, etc. Apply, with full particulars, to 10/2, Office of this Paper.

IRISHMAN, with some experience Chemistry, required, control small Co-metic factory, Dublin; give age, particulars past experience, salary required. Apply 11/11, Office of this Paper.

MANUFACTURER, with established progressive business, requires a Representative who would take a financial interest: excellent opportunity for a good, live man: banker's and solicitor's references given and wanted. 11/16, Office of this Paper.

MANUFACTURING Chemists (London) require fully Qualified Chemist (aged about 30) as Assistant Works Manager; Wholesale Manufacturing experience absolutely essential; knowledge of Tablet Manufacture and Chemists' Packed Lines an advantage; the position offers considerable prospects. Write in confidence, stating age, qualifications, experience and salary required, 315/465, Office of this Paper.

MEDICAL Representative, with good medical knowledge, required for London for high-class scientific medical preparation of established repute. Applications from first-rate men only, stating age, previous activities, salary required, to 315/459, Office of this Paper.

MEDICAL Representatives are required for the following territories:—

IRISH FREE STATE,
LONDON,
SCOTLAND.

Applicants must give full particulars, including age, experience and salary expected to Mr. S. B. Morgan, 3rd Floor, 95 Great Portland Street, London, N.W.1.

REPRESENTATIVE, for Birmingham and Midlands, by well-known Wholesale Chemists; good commission basis. Apply 10/18, Office of this Paper.

REQUIRED by West End wholesale Druggists, an experienced Young Lad for the assembling of orders. Apply with full particulars, to 315/455, Office of this Paper.

REQUIRED.—Permanent Representatives at present calling on Ladies' Hairdressers, Chemists and Stores, to introduce new Advertised Perfumes on 15 per cent. commission basis; 10s. per week expenses allowance. Reply, giving full details of experience, connexions, districts covered and lines carried, to 315/461, Office of this Paper.

SECRETARY-STENOGRAPHER required with previous Drug Trade, experienced particularly in exporting; commencing salary £3. Write, giving full particulars, to the Office Manager, B.D.H., Graham Street, N.1.

SURGICAL Instruments and Appliances, Dressings, etc.—Representatives required for London and Suburbs, calling on Doctors, Nursing Homes and Institutions; only those with good connexions entertained; first-class opportunity for really live men of good address and personality; salary, expenses and commission. Letters only, giving full particulars, in confidence, to Med-Vet Supplies, Ltd., 75 Sussex Road, South Croydon.

TABLET-MAKER and Sugar-Coater wanted for London Wholesale Druggists. 315/468, Office of this Paper.

TRAVELLER required, work large range Sundries in Oxford, Bucks and Beds; must have connexion with Chemists and Hairdressers and possess car. Apply 7/2, Office of this Paper.

WANTED, a Representative to call on Chemists for Veterinary Medicines, and Corn Dealers for Poultry Specialities; must have own car; liberal commission. Give references and area covered. Apply to "Ovelle (Ulster), Ltd.," Newry, Ireland.

WANTED, Unqualified intelligent young man, with manufacturing experience; Analytical knowledge an advantage. All particulars to 315/458, Office of this Paper.

SITUATIONS WANTED

RETAIL (HOME)

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

A.A.A.A.A.—M.P.S., F.N.A.O., F.I.O., M.I.C.O., desires permanent position of trust; experienced all branches Pharmacy, including small scale manufacture; sound practical knowledge Optics and Biochemical analysis; capable of controlling staff; excellent references and full details, "Chemist," 182 Benhurst Avenue, Elm Park, Romford, Essex.

A.A.A.—YOUNG Qualified (1935) Chemist; capable Dispenser. Window-dresser. Photographer. Counter Salesman, etc., wants position with prospects in South; tall, trustworthy, with excellent references; Interview suggested. 11/46, Office of this Paper.

A.—QUALIFIED Manager (33), tall; 8 years' Managerial experience all branches, London, desires permanency, with house or flat preferred (not essential); disengaged. 12/6, Office of this Paper.

A—UNQUALIFIED Gentleman, tall, 7 years' City and Suburban experience; expert Salesman; highest references; London or Provinces only; interview; disengaged. 11/32, Office of this Paper.

A QUALIFIED Pharmacist, young; keen; Retail or Hospital; could commence immediately; any district. Robinson, 126 Bixey Road, Ipswich.

A YOUNG Qualified Pharmacist desires position, London or Surrey; all-round experience, including Photography and Toilets; tall, well-spoken, has initiative and ability. P., 98 Park Avenue, Ewell.

AN efficient Qualified Manager (25) desires post; smart appearance; expert Salesman, first-class Windowdresser, quick and accurate Dispenser; experienced all branches; irreproachable references. Reply 11/23, Office of this Paper.

ASSISTANT, right-hand man, Unqualified; thoroughly experienced and competent; exceptional references; good personality and address; immediately available; S.W. district preferred. 'Phone: Battersea 5177. Andrew, 213 Waverley Avenue, Twickenham.

ASSISTANT (28), experienced high-class Family and West End Business; expert Dispenser. C. H. J. Bishop, 41 Hillcross Avenue, Morden, Surrey.

ASSISTANT (31), Qualified; progressive post; London district; at present working in Kent. 13/2, Office of this Paper.

BUSINESS CHANGED HANDS.—A capable Manager responsible for building up the business is now disengaged; highest credentials; London or South preferred. Goddard, 185 Lady Margaret Road, Southall.

CHEMIST, Qualified, 15 years' varied experience, city or country, requires situation (age 33); trustworthy, sober; good Dispenser and Counter Hand. 10/14, Office of this Paper.

DISPENSER-BOOKKEEPER disengaged (Hall); good experience London Doctors and Chemists; Locum or permanency. Write or 'phone Y. Evans, 49 Elmgate Gardens, Edgware; 'phone Mill Hill 2504.

DISPENSER-BOOKKEEPER (Hall), Matriculation, seeks post, Doctor or Institution; Hospital trained; locum experience. Fletcher, "Overdale," Macclesfield Road, Buxton.

EXPERIENCED Assistant, tall (46), Unregistered; Locum or permanency; well recommended. Haigh, c/o Mr. Harvey, Chemist, Knaphill, Surrey.

EXPERIENCED M.P.S., desires responsible or managerial position; extensive experience in West End and suburban business in all departments; shortly disengaged. "Pharmacist," 2 Park Avenue, Newport Pagnall, Bucks.

EXPERIENCED Qualified Chemist, assistant or branch; disengaged; single, active and reliable. "Chemist," 308 High Street, St. Mary Cray, Kent.

FULLY Trained Lady Dispenser (22) requires experience in Chemist's Shop in London or Suburbs; well educated and willing. 12/5, Office of this Paper.

LADY Assistant, accustomed General Counter work, Dispensing, Windows, desires part- or full-time post. 54 Deans Road, W.7.

LADY Dispenser, with some experience, seeks post, preferably with Doctor, in or near London; Secretarial experience; Doctor's daughter. 12/4, Office of this Paper.

LADY Toilet Assistant, experienced general Counter work, Window-dresser. Evans, 33 The Grove, W.6.

LADY, Qualified, wants a four-day weekly post or Locum; good general all-round experience. Chemist, 208 Portsdown Road, W.9.

LOCUM, disengaged; any period, town or country; highest references; moderate terms. Chemicus, 56 Rudloe Road, Balham, S.W.12.

LOCUM.—M.P.S., F.B.O.A., etc.; 17 years' experience in England, Scotland and Ireland; height 6 ft.; age 34; single; good appearance and address. "Optichem," 50 Cragg Road, Royton, Lanes.

LOCUM, Unqualified; free now; London or near suburbs; used all types of business. 10/13, Office of this Paper.

LONDON.—Qualified, single, permanency desired; over 10 years' managerial experience; well recommended; locum considered. 11/6, Office of this Paper.

LONDON.—45, single; Manager; experienced all branches; desires permanency; well recommended; free December. M.P.S., F.S.M.C., 142 Lordship Lane, S.E.22.

MIDLANDS.—Young Pharmacist (Lady) seeks change; post with Doctors or Chemist; good Dispensing experience. 11/44, Office of this Paper.

M.P.S. DESIRES post in Harrow or near; 10 years' varied experience as Manager; excellent references; free next week; interview any time. 11/30, Office of this Paper.

PHARMACIST (24) requires post as Manager or Assistant; Southern Counties or N.W. London preferred; previous high-class London experience; reliable Dispenser; excellent references; available immediately. Meredith, 14 Solent Road, W. Hampstead, N.W.6. 'Phone, Ham. 2954.

QUALIFIED Chemist seeks situation; many years Retail experience; Manager, Locum or Head Assistant; West End or South Coast preferred. 11/39, Office of this Paper.

QUALIFIED, Manager or Superintendent (51); London only; references; interview; disengaged. 'Phone: Chiswick 4772. Huggins, 38 Fairlawn Avenue, W.4.

QUALIFIED (middle-aged) desires managership Tyneside or near; active, up-to-date Dispensing and business methods; recently disposed of own business; references. 11/26, Office of this Paper.

QUALIFIED Scot (24), South Coast, West End and Hospital (12 months) experience, desires temporary or permanent position; disengaged. 11/24, Office of this Paper.

QUALIFIED (29), tall; good Counter and Dispensing experience; energetic, capable of managing business. Mr. G. L. Bowen, 28 Park Lane, Croydon, Surrey.

UNQUALIFIED Assistant (28), single, seeks position in or near Bristol; all-round experience; competent, good references; can arrange interview; free one month. 11/47, Office of this Paper.

UNQUALIFIED (36), married, requires permanency; good experience all branches. Over 59 Sumatra Road, N.W.6.

WHOLESALE

A.A.—MAN (28), Unqualified, seeks change with prospects; 13 years' sound Retail and Wholesale experience; general office routine, Drug, Pricing, etc. 11/52, Office of this Paper.

A VERY successful Representative, with sound Pharmaceutical connexion, West of England and South Wales, is open for one additional advertised line on part expenses and/or commission basis. 4/2, Office of this Paper.

ALERT, well-spoken young gentleman desires representative or propaganda work in the Liverpool area; Qualified, and with good Retail experience; available now. "N.R.W.," 12 Lanfranc Close, Liverpool, 16.

ASSISTANT (29), Counterhand/Packer; 10 years' continuous experience Manufacturing Chemists. 78 Brondesbury Villas, Kilburn, London, N.W.6.

CAPABLE, responsible gentleman of integrity (32), single, seeks appointment as Representative with reputable house; willing to reside on any territory; medical knowledge; pharmaceutical, trained; able to drive car; salary required. H. B., "The Poplars," London Road, West Malling.

MAN (33), experienced (home) Order Clerk, desires progressive position; 12 years present position with well-known London Wholesale House; fully conversant with all Drugs, etc. 245/7, Office of this Paper.

MIDLAND Representative (own car); approximately 1,200 accounts, Chemists, Co-ops., Hairdressers, Stores, etc.; seeks change of employment; highest references. 10/15, Office of this Paper.

PRODUCTION Manager, "Pharmaceutical and Cosmetic." Qualified Chemist, wishes to join firm where his ability and experience will receive backing; responsible for creation and manufacture of products with wide national and export trade; specialist in design and packaging; factory control, and latest production methods (age 36); excellent credentials. Box H 350, Lee & Nightingale, Liverpool.

P.A.T.A. COUNCIL ELECTION

Retail Section

YEATES X

The recent changes in P.A.T.A. rules show the urgent necessity for safeguarding the interests of retailers. The retail section of the Council is not confined to 100% retailers as it ought to be.

By voting for a retailer who has no interest in manufacturing nor wholesaling you will be acting in your own interests. C. J. Yeates

PHARMACIST (26) desires responsible post with Wholesale Chemists or as Medical Representative; excellent experience and references; car driver. 13/1, Office of this Paper.

REPRESENTATIVE, M.P.S., handling Drugs and Essential Oils, Wholesale trade, open for another representation; London, South Coast, Bristol, Birmingham. 11/49, Office of this Paper.

REPRESENTATIVE with excellent connexion Doctors, Hospitals, etc., in Eastern Counties would like to represent firm same area; own car. W., "The Haven," Southview Drive, Hadleigh, Essex.

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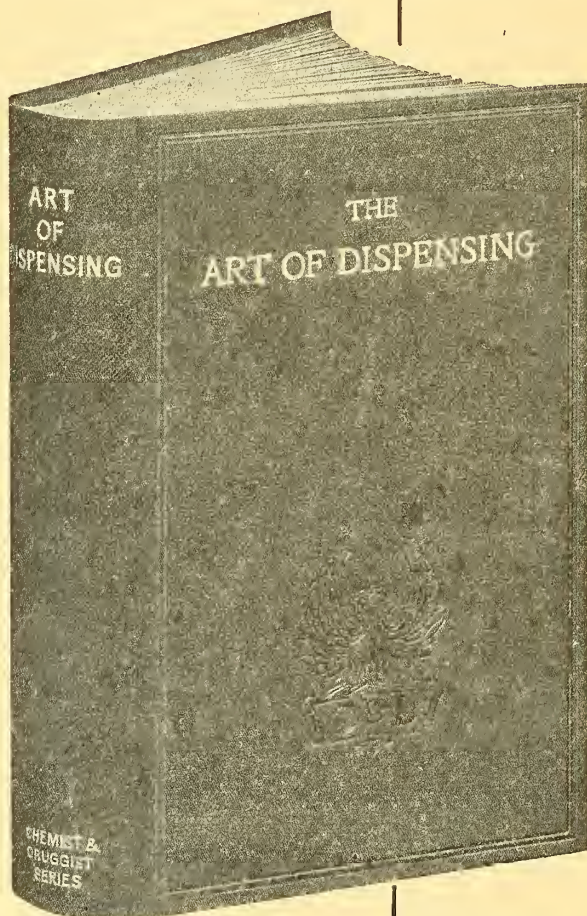
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